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U.S. ARMS CONTROL AND DISARMAMENT AGENCY 1982 ANNUAL REPORT

MESSAGE

FROM

THE PRESIDENT OF THE UNITED STATES

TRANSMITTING

THE 22ND ANNUAL REPORT OF THE U.S. ARMS CONTROL AND DISARMAMENT AGENCY, COVERING CALENDAR YEAR 1982, PURSUANT TO SECTION 50 OF THE ARMS CONTROL AND DISARMAMENT ACT, AS AMENDED (75 STAT. 639, 89 STAT. 760)

APRIL 1983

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FOREWORD

On February 9, 1983, the President submitted the 1982 Annual Report on the Arms Control and Disarmament Agency to Congress. This submission came only a few days after the January 31 deadline set by Congress. As such, it represents a vast improvement over the 1981 Annual Report which was submitted 6 months late. We are, therefore, pleased that the Administration has been responsive to the concerns expressed by the Congress regarding timely submission of such reports.

During 1982, the United States was engaged in two major bilateral arms control negotiations involving the Soviet Union, the Strategic Arms Reduction Talks (START) and the Intermediate Range Nuclear Forces (INF) negotiations. Negotiations also continued in several multilateral forums, including the Vienna talks on Mutual and Balanced Force Reductions (MBFR), the Geneva-based Committee on Disarmament discussions on banning chemical weapons and all nuclear testing, and the Madrid Review Conference deliberations on confidence and security building measures. At the United Nations, the Second Special Session on Disarmament, while providing the world community with an opportunity to debate arms control issues, unfortunately ended without significant results.

During the 5-year Anti-Ballistic Missile (ABM) Treaty review, conducted in the fall of 1982, both the United States and the Soviet Union reaffirmed their continued commitment to this valuable arms control treaty. Meanwhile, on another arms control front, another year passed without entering into force the signed but unratified Threshold Test Ban and Peaceful Nuclear Explosions Treaties. The 1982 Annual Report notes that the United States has promulgated a new space policy and that the United States was a participant at the Vienna UNISPACE conference during the summer of 1982. We believe that the issues raised by space weaponry deserve more attention by the Arms Control and Disarmament Agency, and that the United States must move quickly to head off the growing militarization of space, especially the impending deployment of highly capable anti-satellite weapons by both sides.

As this report reveals, the U.S. Arms Control and Disarmament Agency faced an extremely full agenda in 1982. As we look further into 1983, it seems likely that the demands upon the Agency will grow on several fronts. We believe that if the Agency is to be an effective force in the arms control process it needs more rather than fewer analytical capabilities and support services at its disposal. We believe it is also imperative that the Agency's senior positions be filled at the earliest possible time.

Given the correction of these deficiencies, including the provision of sufficient funds to cover ACDA's intensified arms control agenda,

we believe that the Agency can play the role of arms control advocate which Congress had intended in the 1961 Arms Control and Disarmament Act. For our part, we can assure the Administration and the Agency of our full cooperation and support in this effort.

CHARLES H. PERCY,
Chairman, Committee on Foreign Relations.
CLEMENT J. ZABLOCKI,
Chairman, Committee on Foreign Affairs.

LETTER OF SUBMITTAL

U.S. ARMS CONTROL AND DISARMAMENT AGENCY,
OFFICE OF THE DIRECTOR,
Washington, D.C., January 31, 1983.

The PRESIDENT,
The White House.

MR. PRESIDENT: I am pleased to submit for your transmittal to the Congress, as required by the Arms Control and Disarmament Act, the Twenty-second Annual Report of the United States Arms Control and Disarmament Agency.

Sincerely,

JAMES L. GEORGE,
Acting.

LETTER OF TRANSMITTAL

THE WHITE HOUSE,
February 9, 1983.

To the Congress of the United States:

I am pleased to transmit to you the 1982 Annual Report of the United States Arms Control and Disarmament Agency. This report, the 22nd submitted since the creation of the Agency, provides a complete review of the important work of an Agency which plays a crucial role in our country's national security program.

On September 21, 1982, I met at the White House with the three U.S. arms control negotiators, Ambassadors Rowny, Nitze, and Starr before they returned to Europe for the final 1982 sessions of the START, INF, and MBFR negotiations, respectively. At that time, I outlined the following general principles which guide the formation of our arms control policies:

—Arms control must be an instrument of, and not a substitute for, a coherent security policy aimed in the first instance at the Soviet advantage in the most destabilizing class of weapons—ballistic missiles and, especially, intercontinental ballistic missiles (ICBMs). We will work for agreements that truly enhance security by reinforcing peace through deterrence.

—We must seek agreements that involve substantial and militarily significant reductions on both sides.

—Agreements must be based on the principle of equality of rights and limits.

—Arms control agreements must include effective means of verification. They cannot be based on trust alone.

—Our efforts will be guided by seriousness of purpose, reflected in our willingness to seek reduction to significantly lower levels of nuclear forces based on equal, balanced levels of comparable systems.

These principles are in full accord with the basic purpose of both U.S. and NATO security policy—ensuring the peace through deterrence of aggression. Deterring nuclear or conventional attack against us or our Allies must guide our approach to defense and arms control. These principles also lie at the heart of the comprehensive and innovative arms control approaches which this Administration has adopted. In each of the three most important areas of arms control—strategic nuclear arms, intermediate-range nuclear forces, and conventional forces in Europe—we have presented to the Soviet Union bold and equitable proposals which are in our mutual interest and which provide an opportunity to enhance world security and peace by significantly reducing the arsenals of both sides.

In each of these three negotiations, the United States has presented considered and equitable proposals which seek to establish a military

equilibrium at reduced levels, eliminate the most destabilizing factors in the existing military balance, and enhance the security of both sides. When our national security, and that of our Allies, is at stake, we must approach arms control realistically. We do not seek agreements for their own sake; we seek them to build international security and stability. This Administration's reductions proposals for strategic and intermediate-range nuclear forces and for conventional forces reflect this approach. We are encouraged by the serious and businesslike conduct of these negotiations thus far. Although much hard bargaining lies ahead, I am determined to bargain in good faith until our objectives can be realized. We urge our Soviet negotiating partners equal seriousness of purpose.

The 1982 Annual Report not only includes details on all aspects of the three negotiations, but also refers to such other important elements of ACDA's responsibilities as providing expertise on both policy and technical levels for all other multilateral arms control negotiations, for our nuclear non-proliferation efforts, and for research and analysis of military budgets and arms transfers.

RONALD REAGAN.

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INTRODUCTION

The United States has set into motion during 1982 a dynamic program of initiatives in the field of arms control and disarmament. In each case these new initiatives were based on a thorough review and evaluation of the past history of the subject, and dominated by the proposition that arms control and disarmament efforts are an integral part of foreign and security policy. In his speech of November 18, 1981, President Reagan outlined the approach to three important items on the agenda -- the negotiations between the United States and the Soviet Union on Intermediate-Range Nuclear Forces (INF), the negotiations on Mutual and Balanced Reductions of Conventional Forces in Europe (MBFR), and the continuing process of discussion and negotiation stemming from the final act of the Helsinki Conference on Security and Cooperation in Europe (CSCE). On May 9, 1982, at Eureka College, the President made public the U.S. position on negotiating reductions of strategic nuclear weapons which led to the Strategic Arms Reduction Talks (START). In addition, the United States has revised and revitalized its programs for preventing the proliferation of nuclear weapons, eliminating the menace of chemical weapons, studying the feasibility of imposing further limits on the military use of outer space, and developing new and more effective measures to ensure confidence and to minimize the risks of war by miscalculation.

The foundations of the U.S. peace initiative are the twin bilateral negotiations between the Soviet Union and the United States on the reduction of intermediate-range nuclear arms and strategic nuclear arms through verifiable agreements which strengthen

security and help to make stability possible. The outcome of these negotiations will affect the prospects for many other arms control efforts and, indeed, the prospects for peace itself.

The INF talks have now been going on for a year in a serious and businesslike atmosphere. The essence of the U.S. proposal in the INF negotiations is to achieve zero levels of U.S. and Soviet intermediate-range ballistic missiles and ground launched cruise missiles deployed in Europe.

To achieve reductions and stability in strategic systems, the President announced a practical, phased approach to the START negotiations. That approach is based on the principle of equality. "The focus of our efforts," the President said, "will be to reduce significantly the most destabilizing systems -- ballistic missiles, the number of warheads they carry and their overall destructive potential."

In July the West formally tabled a draft MBFR Treaty, embodying a new, comprehensive proposal designed to give renewed momentum to the negotiations. The new proposal highlights the primary Western objective in these negotiations, which is the lowering of tensions in Central Europe through a reduction in conventional forces, and the establishment of parity at lower force levels in the form of common collective ceilings on the military manpower of each side. This proposal, tabled as a draft treaty, goes far toward meeting Eastern concerns, and underscores Western seriousness and willingness to bring about militarily significant reductions in Central Europe.

Like the UN Charter, the Helsinki Final Act recognizes that basic human rights and fundamental freedoms are an essential element in the overall equation that defines security and cooperation between states. The United States is committed to the Helsinki Final Act and to the CSCE process in its entirety. As part of this commitment, the United States seeks balanced and substantive improvements both in the implementation of previously made agreements and in strengthening their provisions. That was the intent when the Madrid meeting first convened two years ago, and that is the intent now.

Another important arms control challenge facing the international community is the threat of the spread of nuclear weapons to additional countries. The United States and the Soviet Union have assumed special responsibilities to work together in order to limit and reduce nuclear arms. But the problem of nuclear arms control is not merely one of negotiating agreements between the Soviet Union and the United States. The issue runs deeper. Every state, nuclear and non-nuclear alike, has the same interest in preventing nuclear proliferation. A world of many nuclear weapon states would be unstable and unpredictable. As Secretary Shultz said to the General Assembly on September 30, 1982, "The threat of nuclear proliferation extends to every region in the world and demands the attention and energy of every government." International cooperation in non-proliferation is essential if we are to confront this major threat to international peace.

The United States believes that arms control and disarmament efforts can be useful instruments of a strategy for attaining and preserving peace. To spur this process, we have called

on all nations to recommit themselves to the rules of the UN Charter regarding the international use of force. Arms control efforts are meaningless without effective programs of collective security. The United Nations Secretary General, Mr. Perez de Cuellar, has strongly supported the President's call. We shall back the efforts of the Secretary General to restore the vitality of the Charter of the United Nations in every possible way, and we are cooperating now in the early stages of such a program and in making it work.

BILATERAL NEGOTIATIONS

Introduction

During 1982, the United States and the Soviet Union began the Strategic Arms Reduction Talks (START) negotiations in Geneva and continued the Intermediate-Range Nuclear Forces (INF) negotiations initiated in 1981. The U.S. goals in these negotiations are to reach and sustain equitable and verifiable arms control agreements which provide for significant reductions in the most destabilizing nuclear systems and to enhance deterrence and stability. The Standing Consultative Commission (SCC) held two regular sessions and conducted the review of the Anti-Ballistic Missile (ABM) Treaty called for at five-year intervals.

The U.S. position in the START and INF talks has emphasized significant reductions by both sides in the most destabilizing systems, ballistic missiles and in particular ground-based ballistic missiles of intercontinental and intermediate range, to levels of equality. Imbalance in the number and quality of such weapons is the most destabilizing element of the nuclear equation. Ground-based ballistic missiles are extremely swift, accurate and destructive, and there are no effective defenses against them. The Soviet numerical advantage in ground-based ballistic missile warheads, which has increased by the simplest measure from approximate equality in 1972 to roughly three-to-one, is the source of the nuclear anxiety now sweeping over world politics. The restoration of equality in these forces, preferably by reductions, is the the heart of the nuclear arms negotiating problem.

Such equality, coupled with the President's force modernization decisions, should allow both sides to maintain a credible retaliatory deterrent, but deny the Soviet Union a capacity for nuclear blackmail.

Four principles, which the Administration is working to implement, underlie the U.S. approach to arms control. We seek agreements that:

- Produce significant reductions in the arsenals of both sides;
- Result in equal levels of arms on both sides, since an unequal agreement, like an unequal balance of forces, can encourage coercion or aggression;
- Are effectively verifiable, because when national security is at stake, agreements cannot be based upon trust; and
- Enhance U.S. and allied security and reduce the risk of war. Arms control is not an end in itself but rather a complement to adequate defenses as an important means of underwriting peace and international stability.

The Executive Branch agencies which have a direct responsibility for national security affairs -- the National Security Council, the Department of State, the Office of the Secretary of Defense, the Organization of The Joint Chiefs of Staff, the Central Intelligence Agency, and the Arms Control and Disarmament Agency -- are all involved in advising the President on START and INF matters. The NSC meets regularly to discuss START and INF issues and formulate U.S. policy.

The START and INF delegations are headed by ACDA officials, Ambassadors Edward L. Rowny and Paul Nitze, respectively. Day-to-day support for the delegations is provided by START and INF backstopping committees, which are composed of representatives of involved agencies and are chaired by ACDA's Deputy Director. Representatives of ACDA also participate in the negotiations and on interagency committees and working groups dealing with START and INF issues.

Strategic Arms Reductions Talks

The U.S. position in the START negotiations was outlined in President Reagan's speech at Eureka College on May 9, 1982. "The focus of our efforts," the President said, "will be to reduce significantly the most destabilizing systems -- ballistic missiles, the number of warheads they carry and their overall destructive potential." While no aspect of the problem is excluded from consideration, and the United States will negotiate in good faith on any topics the Soviets wish to raise, the United States proposed that during the first phase of the negotiations there should be agreement on a reduction of ground-based and submarine-based ballistic missile warheads to equal levels one-third below current numbers. Each side now has approximately 7500 such ballistic missile warheads. Under the U.S. proposal each side would have to reduce to 5000 warheads, of which no more than 2500 could be on intercontinental ballistic missiles (ICBMs). The United States has also proposed a limit of 850 deployed ballistic

missiles, roughly one-half the current U.S. inventory. The President, in his Eureka College speech, expressed the hope that these reductions would be achieved as rapidly as possible.

In a second phase, closely linked to the first, the United States is seeking equal ceilings on other elements of U.S. and Soviet strategic forces, including equal limits on ballistic missile throw weight at less than current U.S. levels. Significant progress towards throw-weight equality should be accomplished in the first phase of these negotiations.

In START (and INF), the United States has made it clear that verification measures capable of ensuring compliance are indispensable. For those provisions that cannot be monitored effectively by national technical means of verification, we are proposing cooperative measures, data exchanges, and collateral constraints that would provide the necessary confidence in compliance. Without satisfactory verification provisions, meaningful agreements will be impossible to achieve.

The first round of the START negotiations began in Geneva on June 29, 1982, and was recessed on August 13, 1982. A second round began on October 6, 1982, and was recessed on December 2, 1982. The third round will begin in February 1983. In agreement with the Soviet representatives, details of the serious and businesslike negotiations have been kept confidential.

Intermediate-Range Nuclear Forces

The primary impetus for the INF negotiations was NATO's 1979 two-track response to Soviet SS-20 deployments. The Soviet

Union in 1976 began the deployment of the SS-20 which is highly accurate and can strike all important targets in Europe, even from locations in the middle of Siberia. The Soviet Union currently has 333 SS-20 systems deployed (December 1982) and, together with older SS-4 and SS-5 ballistic systems, some 1200 warheads.

In 1979, the North Atlantic Treaty Organization (NATO) nations unanimously agreed that it was necessary to counter this new threat unless it were withdrawn. The Alliance decided that the United States should move to deploy in Europe two different types of missiles, the Pershing II ballistic missile and the BGM-109G ground-launched cruise missile, and simultaneously seek negotiations with the Soviet Union for the limitation of the most threatening systems on both sides.

The U.S. approach to the INF talks was announced by President Reagan in his speech of November 18, 1981. In this speech, the President proposed that the United States and the Soviet Union address the systems of most concern to both sides, the Soviet SS-20, SS-4 and SS-5 ballistic missile systems and the U.S. Pershing II ballistic missile and BGM-109G ground-launched cruise missile systems. In order to enhance stability, he set forth a proposal that would provide for the elimination of such systems on both sides -- the zero/zero solution.

The Soviet side responded, first, with a proposal for a moratorium for the duration of the negotiations and, second, a negotiated program of reductions based on the incorrect premise that there is rough equality in what the Soviets term "medium-range"

nuclear systems (when British and French nuclear forces are combined with the dual-capable aircraft of the United States).

Negotiations began in November 1981. As in other negotiations of this kind, the delegations have agreed that they will keep the details of the talks confidential. During the three rounds of negotiations which have taken place since talks commenced, both sides have presented draft treaty texts embodying their respective proposals. The United States has urged Soviet acceptance of an agreement based on the elimination and renunciation of long-range, land-based INF systems on both sides and has thoroughly explained the adverse impact that the Soviet approach would have on NATO security.

During extensive discussions, the principal issue which has emerged between the sides is the treatment of missiles. The U.S. draft treaty would ban longer-range INF (LRINF) missiles on both sides. However, under the Soviet approach, LRINF missiles would be eliminated on the U.S. side only; the Soviet Union would be permitted to retain a monopoly in such missiles. Moreover, the Soviet Union has stated that the INF talks should focus exclusively on Europe. The United States holds the position that the LRINF missile problem is global, and that the cause of world peace cannot be advanced by permitting the Soviet Union to augment its already large INF advantage in Asia.

In addition, the Soviet Union seeks to treat aircraft as an equal priority with missiles and to include them under the ceiling of 300 systems that it has proposed. The United States believes

that their inclusion would only complicate and delay agreement on LRINF missile systems, which are the weapon systems of greatest concern to both sides. The United States takes this position even though the Soviet Union has a superiority in aircraft as well as missiles. Almost all U.S. nuclear-capable planes located in Europe are dual-capable, and restrictions on them would weaken our conventional strength. The Soviet draft treaty would have the effect of forcing almost total withdrawal from Europe of such United States dual-capable aircraft, while leaving the Soviet Union with a significant numerical advantage.

The Soviets have proposed that British and French "medium-range" nuclear-capable systems be counted forward U.S. totals under the aggregate ceiling limiting U.S. and Soviet missiles and aircraft. These forces, however, are under the sovereign control of Britain and France; French forces are not under NATO command. The INF negotiations are bilateral in nature. Neither Britain nor France has authorized either the United States or the Soviet Union to negotiate in its behalf. On the contrary, they have stated their opposition to having their forces taken account of or compensated for in U.S.-Soviet negotiations. From their standpoint, their nuclear forces are strategic; they represent their last line of defense to safeguard their vital national interests. Furthermore, they are national deterrent forces which have roles and characteristics different from the LRINF systems of the United States and the Soviet Union. The Soviet demand that these forces be included in INF is tantamount to a claim that the Soviet Union has a right to

forces equivalent to those of all of its potential adversaries combined. This is equivalent to a demand for absolute superiority which the United States abviously cannot accept.

At the end of 1982, the new Soviet leader, General Secretary Andropov, suggested tnat the Soviet Union is ready to reduce the numoer of its missiles in Europe to the number of missiles deployed by Britian and France, if the United States cancelled its planned deployments. However, this proposal, which followed earlier suggestions in the negotiations in Geneva, goes no further than the original Soviet proposal in meeting NATO'S fundamental security concerns. Even with destruction, this would permit the Soviets to retain a substantial force of SS-20's in Europe while preventing any U.S. deployments. Moreover, the Soviet proposal does not specify what will be done with missiles that are withdrawn nor does it put any restrictions on systems in the Eastern part of the Soviet Union. The United States continues to believe that the zero-zero solution, which would eliminate all U.S. and Soviet longer-range land-based INF missiles anywhere in the world, is the best and most equitable approach to these negotiations.

Although the Soviet Union has not moved from its insistence on retaining its monopoly in LRINF missiles, the talks have been serious and businesslike. Some progress has been achieved by tne two delegations in sorting out what is important to each side and illuminating the way to possible solutions which can be reached if the Soviet Union can be persuaded to accept the defensive principle of deterrence.

MULTILATERAL NEGOTIATIONS

Introduction

The United States participated actively in the consideration of arms control issues in six multilateral fora in 1982: the United Nations General Assembly's Second Special Session on Disarmament, the United Nations Disarmament Commission, the Vienna negotiations on Mutual and Balanced Force Reductions in Europe, the Madrid review meeting of the Conference on Security and Cooperation in Europe, the Geneva-based Committee on Disarmament, and the regular session of the United Nations General Assembly.

Second Special Session on Disarmament

The Second Special Session on Disarmament (SSOD II) took place in New York from June 7 through July 10, 1982. SSOD II was mandated by the First Special Session on Disarmament (SSOD I) held in 1978. SSOD II provided a forum for many world leaders publicly to express their concerns over the arms race and the threat of nuclear war.

A highlight of the Session was President Reagan's address. The President made a forceful presentation of the major elements of the Administration's arms control policy -- particularly the START and INF negotiations. He was sharply critical of Soviet behavior, in particular their massive arms buildup and their use of chemical weapons in violation of international law.

The principal activities of the Session were its work on two documents, one dealing with a comprehensive program of disarmament which would provide a listing of disarmament measures necessary for the accomplishment of general and complete disarmament, and the other reviewing developments in the field of disarmament since SSOD I. Despite extensive discussion, agreement could not be reached on either of these documents.

The meeting was, nonetheless, of striking importance. The principal theme of the Session, stated with great force by the Secretary General and a number of other speakers, was that unless and until the rules of the UN Charter regarding aggression were respected and enforced, arms control and disarmament negotiations would be largely a sterile ritual.

The United Nations Disarmament Commission

The UN Disarmament Commission (UNDC), composed of all UN members, was created in 1951 as a deliberative, rather than a negotiating body dealing with issues of disarmament. It accomplished little and gradually fell into disuse until revived at SSOD I.

In 1982 the UNDC met for a two-week period in May to consider the nuclear arms race and nuclear disarmament, the nuclear plans and capability of South Africa, reduction of military budgets, and elaboration of a mandate for a UN-sponsored study on conventional weapons. No conclusions were reached on the first three of these items, though the UNDC did agree on guidelines for the conventional weapons study.

Mutual and Balanced Force Reductions

In October 1973, twelve NATO allies and the seven Warsaw Treaty Organization countries entered into the negotiations on Mutual and Balanced Force Reductions (MBFR) in Vienna, Austria. These negotiations have the objective of reducing the massive confrontation of conventional forces in Central Europe, thus providing a more stable relationship between the two alliances and of strengthening peace and security in Europe. Forces would be reduced in the area of Central Europe covered by the territory of the Federal Republic of Germany, the German Democratic Republic, the Netherlands, Belgium, Luxembourg, Poland, and Czechoslovakia.

The Balance of Forces in Central Europe

Although NATO possesses substantial and well-equipped conventional forces in the area under consideration in MBFR, there is a significant disparity between the ground forces of the two sides. For example, according to Western force comparison estimates for the year 1980, Western ground force manpower amounted to about 790,000 while similar forces belonging to the Warsaw Pact totaled about 960,000 -- an Eastern superiority of some 170,000 men.

In addition to this very significant manpower disparity, the Soviet Union maintains significant military forces on its own territory just adjacent to the area to be covered by an agreement. Being outside the area, these forces would not be subject to the reductions and limitations of an eventual MBFR agreement. Among other things, this circumstance of geography gives the Eastern side a significantly greater rapid reinforcement capability which

in the Western view, must be taken into account in these negotiations.

The Western Position

As part of President Reagan's four-point arms control program announced in November 1981, the United States developed a new approach to the Vienna negotiations based on the President's criteria of "substantial, verifiable and militarily significant" reductions to equal ceilings. Following Alliance consultations on the proposal, the West on July 8, 1982, presented to the East a draft treaty embodying a single comprehensive plan for reductions in which all nations participating in the reductions would assume legally binding commitments to reduce to the agreed common force ceilings within seven years. At the end of this period, the West envisions that the ground and air force manpower of each side would be limited to about 900,000, of which no more than 700,000 would be ground forces. The reductions contemplated would be taken in four stages, the first of which would involve the withdrawal of 13,000 U.S. and 30,000 Soviet ground forces. After each stage of reductions, there would be a year-long pause to ensure that the scheduled reductions had indeed been taken and that the residual ceilings were being maintained.

All reductions would be based on agreed manpower data and starting force levels for each side would be specified in the agreement. In addition, the associated confidence-building and verification measures that have long been a part of the Western position in MBFR remain an integral part of the new draft treaty.

The Eastern Position

In February 1982, the Eastern side tabled a draft agreement proposing U.S. and Soviet reductions in an initial reduction phase, but postponing discussion of reductions by all direct participants in subsequent phases. This proposal incorporates well-known Eastern positions on the size and form of reductions, and on the linkage between initial U.S.-Soviet reductions and those in subsequent phases. It also includes a limited set of associated measures, which is far more modest than the West believes necessary, and does not address the question of manpower data.

Major Issues

Data. At the same time that the Western figures show the significant disparity described above, the East insists that rough parity in manpower already exists. Consequently, the East refuses to accept the proportionally larger reductions the West says the East must take in order to reduce to parity at the level of the common ceiling. However, the West insists that any agreement must be based on agreed manpower data and that the large discrepancy between the two sides' figures on the size of Eastern forces in the reductions area must be resolved. The Eastern side has so far resisted numerous attempts to clarify the sources of this discrepancy through comparing more detailed breakdowns of the figures of the two sides.

Associated Measures. A program of confidence-building and verification measures including inspections has been part

of the Western negotiating position since December 1979. These measures would complement the actual reductions and limitations in an eventual treaty by providing assurances about compliance with those reductions and limitations and about the nature of eacn side's military activities. Although the East has accepted the concept of such measures, it remains to be seen whether it will agree to the kind of extensive measures the West has made a prerequisite for an agreement.

Prospects

The Western draft treaty of July 1982 was intended to impart momentum to the negotiations in Vienna and contains significant movement toward the long-held Eastern position calling for binding commitments by all direct participants to reduce their forces. Under the new Western approach, the West has offered stronger commitments along these lines than ever before. The tabling of the draft treaty is evidence of the seriousness of purpose with which the West views the MBFR negotiations. Progress now depends on an indication of interest by the Eastern side which needs to take steps of comparable importance in response to the new Western draft treaty.

ACDA's Role

The U.S. representative, who heads tne U.S. MBFR Delegation, reports to the Director of ACDA. The Agency also provides a senior official plus other staff personnel to the delegation in Vienna. In Washington, ACDA serves as the focal point for preparation of instructions for the U.S. Delegation in Vienna and for the U.S. Mission to NATO in Brussels.

Conference on Security and Cooperation in Europe

The Review Conference on Security and Cooperation in Europe (CSCE), opened in Madrid on November 11, 1980, and has continued, with recesses, since then. The 35 nations participating in the CSCE share the conviction that a successful review conference is essential not only to sustain the CSCE Final Act and its implementation, but more importantly, to make increasing use of the CSCE forum to discuss and resolve major issues of concern to Europe, both with respect to humanitarian dimensions and to military security.

Security discussions continue to focus on a mandate for a Conference on Confidence and Security Building Measures as proposed by France in 1980. Poland, Romania, Sweden, and Yugoslavia have made similar proposals. Agreement on such a conference has become an important objective for NATO.

A proposal for a final concluding document tabled by the neutral/nonaligned (NNA) states has been received positively by the NATO countries, even though a number of problem areas remain. The Soviet Union and the other East European states, with the exception of Romania, have been less satisfied with this document, but have expressed willingness to accept it as a basis for negotiation.

The first session of the CSCE Madrid meeting in 1982 (February - March) was held in the full shadow of the Polish crisis. Most of the final plenary speeches delivered by NATO and NNA countries concentrated on the Polish situation. Eastern representatives

argued in response that the events in question in Poland were an internal matter not relevant to CSCE. The first session in 1982, therefore, made no progress on a substantive concluding document. The second session, which began in early November and recessed in mid-December 1982, was also unsuccessful in reaching agreement on a substantive document. The NATO countries committed themselves to a position linking genuine improvement in the situation in Poland and progress on the human rights front in the East with agreement to a concluding document that would include a mandate for a conference on CSBMs in Europe.

ACDA provides a member of the U.S. Delegation to the Madrid Review Meeting of CSCE, and has primary responsibility for developing U.S. policy relating to disarmament and security in the CSCE context.

Committee on Disarmament

The Committee on Disarmament (CD), which meets for approximately six months each year in Geneva, is the principal multilateral negotiating body dealing with arms control and disarmament issues. Its membership consists of forty nations, including the five nuclear weapon states (the United States, the United Kingdom, France, the People's Republic of China, and the Soviet Union). The Committee met from February 2 to April 23 and from August 3 to September 17, 1982.

In addition to conducting its general debate on a broad variety of disarmament issues, the Committee established five working groups on specific subjects: chemical weapons, radiological

weapons, development of a comprehensive program of disarmament, the question of so-called "negative security assurances," and verification of a nuclear test ban.

The chemical weapons (CW) working group continued its efforts to develop an international convention banning the development, production, stockpiling and retention of chemical weapons. The United States was in the forefront in these efforts. President Reagan stated on February 8, 1982, that the "ultimate goal of the United States' policy is to eliminate the threat of chemical warfare by achieving a complete and verifiable ban on chemical weapons." During 1982 the CW working group succeeded in bringing into sharper focus a number of issues essential to the elaboration of an effective convention. The need for effective verification measures to ensure compliance was accorded especially intense scrutiny by many delegations, including that of the United States. This need was reinforced by evidence of prohibited lethal chemical agents and toxins as methods of warfare in Laos, Kampochea, and Afghanistan. In this regard, the failure of the Soviet delegation to elaborate any further on the verification proposals the Soviet Union advanced at the UNGA Second Special Session on Disarmament in June 1982, was disappointing.

A working group continued its efforts to conclude a treaty prohibiting the development, production, stockpiling, and use of radiological weapons (RW). One of the unresolved issues is that of a generally acceptable definition of radiological weapons. In addition Sweden and Japan have proposed that the working group

consider additional legal measures affording protection to nuclear facilities against military attack. The United States, while noting that it has not been persuaded that measures beyond those already embodied in international law are necessary, has stated its willingness to participate constructively in discussions on this matter.

The working group addressing a Comprehensive Program of Disarmament (CPD), which the CD had been requested to present to SSOD II, could not agree on a final text. Fundamental differences prevented a resolution of the matter at SSOD II and the draft CPD was returned to the CD for further negotiation and for submission of a revised text to the United Nations General Assembly in 1983. The United States has participated in efforts to develop a CPD which could serve as a guide towards general and complete disarmament under strict and effective international control. The NNA States, on the other hand, have sought a legally binding CPD which would dictate specific actions to be completed by arbitrary target dates.

Another CD working group continued efforts during 1982 to reach agreement on effective international arrangements which would provide assurance to non-nuclear-weapon states that nuclear weapons would not be used against them (negative security assurances). The nonaligned countries have continued to seek unconditional pledges from the nuclear weapon states to be embodied in an international convention. In 1982 the United States reaffirmed its 1978 unilateral assurance that it "will not use nuclear

weapons against any non-nuclear-weapon state party to the Non-Proliferation Treaty or any comparable internationally binding commitment not to acquire nuclear explosive devices, except in the case of an attack on the U.S., its territories or armed forces, or its allies, by such state allied to a nuclear weapon state or associated with a nuclear weapon state in carrying out or sustaining the attack."

A working group was established for the purpose of investigating verification and compliance issues related to a Comprenensive Nuclear Test Ban. As of the end of 1982 no agreement was reached on the work program.

The CD also debated the need for the establishment of an ad hoc working group to address the prevention of an arms race in outer space. However, no consensus was reached on this matter.

The U.S. Representative to the CD in 1982 was Ambassador Louis G. Fields, Jr. ACDA, the Departments of State and Energy, the Office of the Secretary of Defense, and the Organization of the Joint Chiefs of Staff provided advisers to the delegation.

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NUCLEAR NON-PROLIFERATION

Introduction

A fundamental objective of U.S. foreign and national security policy is to prevent the spread of nuclear weapons to additional countries. In his July 1981 policy statement, President Reagan noted that nuclear proliferation is one of the most critical challenges in international affairs. He said that further proliferation would pose a severe threat to international peace, regional and global stability, and the security interests of the United States and other countries. In an address at the United Nations before the Second Special Session on Disarmament in June 1982, President Reagan again emphasized U.S. concern over the problem of proliferation and expressed his strong commitment to non-proliferation objectives.

Every U.S. administration since the beginning of the nuclear age has accepted the goal of preventing the proliferation of nuclear weapons. Whether the international community is ultimately successful in its non-proliferation efforts will depend largely on its ability to improve regional and global stability and to reduce those motivations that would cause countries to seek nuclear weapons. To complement its broader efforts at increasing international security the United States has continued to support adherence to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and the Treaty for the Prohibition of Nuclear Weapons in Latin America (Treaty of Tlatelolco). Further, the United States continues to inhibit the transfer of material, equipment and technology particularly to countries having nuclear programs where

there is a risk of proliferation. This is accomplished through U.S. export control and cooperation with other nuclear supplier countries. Finally, the United States has supported strengthening the safeguards regime on civil nuclear programs implemented by the International Atomic Energy Agency (IAEA), as a means of reducing the risk that these facilities will be used for developing nuclear explosives.

The Arms Control and Disarmament Agency plays an important role in the non-proliferation efforts of the U.S. Government. On a day-to-day basis the staff in ACDA provides critical expertise on both policy and technical matters. This wide spectrum of involvement ranges from issues dealing with U.S. civil nuclear cooperation with our allies, to international cooperation on nuclear export control, and to issues related to the NPT and the IAEA. To supplement these efforts at the technical level, the United States is examining the possibility of further measures of a political character, including consultations with the Soviet Union.

Plutonium Use Policy

The emphasis of the previous Administration on the proliferation risks associated with the reprocessing of spent fuel to separate plutonium led to policies that were perceived by our allies as direct interference in their civil nuclear programs. These disputes had an adverse effect on our nuclear relations and diverted attention from more pressing non-proliferation problems.

The Reagan Administration recognizes the dangers associated with the use of plutonium and understands that caution must be exercised in establishing policies for its use in a civil nuclear program and any use must be strictly safeguarded. However, any such policies must also recognize that there are differences among states in terms of the stage of their nuclear program as well as in the degree of proliferation risk each poses.

Some of the non-proliferation policies inherited by the Administration were not producing the desired results and, in fact, were counterproductive to establishing the type of cooperation with our Allies that would result in the best possible controls on plutonium. In his July 1981 policy statement on non-proliferation and nuclear cooperation, the President declared:

> The United States will cooperate with other nations in the peaceful uses of nuclear energy, including civil nuclear programs to meet their energy security needs, under a regime of adequate safeguards and control. Many friends and allies of the United States have a strong interest in nuclear power and have, during recent years, lost confidence in the ability of our nation to recognize their needs.
>
> We must reestablish this nation as a predictable and reliable partner for peaceful nuclear cooperation under adequate safeguards. This is essential to our non-proliferation goals. If we are not such a partner, other countries will tend to go their own ways, and our influence will diminish. This would reduce our effectiveness in gaining the support we need to deal with proliferation problems.
>
> The Administration will also not inhibit or set back civil reprocessing and breeder reactor development abroad in nations with advanced nuclear power programs where it does not constitute a proliferation risk.

To carry out these policies, the President instructed the Secretary of State to review possible approaches to develop a more predictable

policy for exercising U.S. rights to approve reprocessing and plutonium use. This review was completed in the middle of 1982.

The President decided that in the cases of Japan and EURATOM (which include inter alia the United Kingdom, France, the Federal Republic of Germany, Italy, Belgium, and the Netherlands) the United States will offer to work out predictable, long-term arrangements for spent fuel reprocessing and plutonium use for civilian power and research needs. These are countries where there are advanced nuclear power programs and where such activities do not constitute a proliferation risk and are under effective safeguards and controls. These arrangements will, of course, be fully consistent with statutory requirements. U.S. willingness to agree to such long-term arrangements with these countries will enhance our ability to obtain the cooperation necessary to institute effective safeguards and other controls on plutonium. ACDA representatives, along with representatives from the Departments of State and Energy, have participated in the ongoing negotiations with Japan on a long-term arrangement. While ACDA's interest spans the full range of the items under consideration, the adequacy of the provisions related to safeguards and physical protection have been of special interest.

Concurrent with this decision on working out long-term arrangements for reprocessing of U.S. origin fuel, the President decided that the United States would be prepared to consider the export of reprocessing technology to Japan and EURATOM. These are

cooperating partners which already have reprocessing capabilities and technology; it was decided that a willingness to cooperate could help influence any future expansion of this capability if it were willing to provide assistance.

This decision in no way reflects any change in the historic U.S. policy to exercise restraint in the export of sensitive nuclear items such as reprocessing technology. President Reagan reaffirmed that policy in his July 1981 policy announcement when he declared that:

> The U.S. will continue to inhibit the transfer of sensitive nuclear material, equipment and technology, particularly where the danger of proliferation demands.

U.S. Export Controls

In terms of effectiveness and comprehensiveness the United States maintains one of the best national systems for controlling nuclear exports. In the United States system, exports of nuclear equipment and material are formally licensed by either the Nuclear Regulatory Commission (NRC) or the Department of Commerce.

Controls over virtually all NRC licensed items are required by the NPT which is the foundation of the international nuclear export control regime. Article III.2 of the NPT requires each State Party to the Treaty "not to provide: (a) source or special fissionable material, or (b) equipment or material designed or prepared for the processing, use or production of special fissionable material to any non-nuclear-weapons State" unless these items are under IAEA safeguards. Thus, NRC license items are those which are related to the acquisition or production of

fissile material. They have specialized nuclear uses and IAEA safeguards are applicable to them. ACDA participates in the review which leads to the Executive Branch recommendation to the NRC on each specific license.

The Department of Commerce licenses so-called "dual-use" items which have legitimate non-nuclear uses as well as nuclear applications. Most of the equipment and material in this category are items which, if misused, could contribute to the actual manufacture of a nuclear explosive (in contrast to the production of fissile material). The United States has developed the Nuclear Referral List, which includes equipment and materials needed to design, test and manufacture nuclear explosives. Examples of such equipment include advanced computers and high-speed cameras.

License applications to export any item on the Nuclear Referral List are subject to review by the Department of Commerce and the Department of Energy. They in turn refer those applications which raise concern to the Sub-Group on Nuclear Export Coordination (SNEC), in which ACDA is an active participant. The SNEC functions well in focusing interagency attention on the proliferation issues associated with specific exports.

ACDA contributes to the effective operation of the SNEC in two noteworthy ways. First, since the ACDA staff closely follows the proliferation intelligence related to problem countries, ACDA is able to take a leading role in formulating an appropriate U.S. position on particular SNEC cases. This is done in very close coordination with the Departments of State and Energy. In

this joint effort, ACDA often provides a review of the past history of a particular foreign country's nuclear programs, including previous U.S. concerns and actions taken. Secondly, ACDA contributes by helping to link specific export control decisions to broader nuclear non-proliferation policy concerns. ACDA representatives work exclusively on nuclear non-proliferation, and are closely involved in formulating and implementing all aspects of U.S. and international nuclear non-proliferation policies. ACDA's participation in the SNEC brings this knowledge of existing and developing U.S. policy to bear on license applications.

International Export Controls

During 1982 the United States continued to pursue the objective of more effective international cooperation on nuclear exports. Vigorous efforts in this area are essential in preventing or slowing the proliferation of nuclear weapons to additional states.

Chief among these nuclear export objectives is the effort to convince all major supplier states to require non-nuclear weapon states to accept IAEA safeguards on all their nuclear activities as a condition for providing any significant new nuclear assistance to such states. This has been a long-standing U.S. objective. Discussions on such a common policy continued during 1982, but there is no progress to report. The fact that all suppliers have not yet been willing to agree to such a common policy does not mean that suppliers are insensitive to the proliferation risks

posed by the operation of unsafeguarded nuclear facilities in certain non-nuclear weapon states. Some supplier countries have simply not been convinced that such a measure would actually be a constructive approach to dealing with the proliferation problem in any particular country.

Another active field of international cooperation on nuclear export control concerns improvements to the existing Trigger List. This list contains items which supplier countries have agreed to export only if the recipient country agrees to certain assurances, including the application of IAEA safeguards with respect to these items. This list has not been updated for several years, and there is some urgency in obtaining certain improvements in view of weaknesses which have come to light in the past two to three years. There has been substantial progress in this area during 1982, particularly in clarifying existing controls on components related to gas centrifuge enrichment plants.

Another nuclear export control issue on which the United States has taken the lead is in the area of so-called dual-use items, which were discussed in the previous section. The United States has a very effective system for monitoring the proposed export of such items, and we have had bilateral consultations with a number of governments urging them to consider a similar approach. This is a relatively new field for international nuclear export control, and there has been some real progress over the past few years in obtaining cooperation from other suppliers.

Finally, the United States continues to emphasize not only the importance of controlling certain items for export, which by

their nature can increase tensions in volatile regions, but also to urge other suppliers not to export such items. For example, the U.S. opposes the export of sensitive items to the Middle East, and we have urged supplier countries to exercise similar caution. In general, where there are serious proliferation risks, the United States is opposed to the transfer of highly enriched uranium or plutonium and the technology or equipment for their production, regardless of the purported civil applications.

ACDA has specialists on safeguards, export control, and regional issues that permit it to play a major role in the development and implementation of policy in the area of international nuclear export control. This involvement includes approaching other supplier governments on individual export cases, developing broad functional policy guidelines, and participation in U.S. delegations consulting on nuclear export matters.

IAEA Reassessment

The United States played a major role in the establishment of the IAEA in 1957. Since that time the United States has provided strong and generous support for the two principal objectives of the IAEA, i.e., promoting the peaceful uses of nuclear energy and ensuring continued effectiveness and improvement of IAEA safeguards. In September 1982, however, the U.S. delegation withdrew from the meeting of the IAEA General Conference, and the United States announced a reassessment of its support for and participation in the IAEA.

The immediate cause of this action by the United States was the illegal rejection of the credentials of the Israeli delegation by the General Conference. This action constituted a clear violation of the established procedures of the IAEA. While deeply disturbed by the illegality of this action, U.S. concerns regarding the issue of Israeli membership and credentials in the IAEA represent only a part of a much broader and more fundamental concern regarding a growing trend toward increased political controversy in the IAEA and other UN and UN-related agencies. In the past, political issues unrelated to the technical functions of the IAEA have only rarely intruded and disrupted the proceedings of the IAEA. In recent years, however, there has been a disturbing willingness on the part of a number of IAEA member-states to violate the established statutory provisions and legal procedures of the IAEA in pursuit of political vendettas unrelated to the mandated functions of the IAEA. If this trend continues, the ability of the IAEA to execute its statutory responsibilities will be severely eroded. Thus, the U.S. withdrawal from the General Conference and the reassessment of our participation in the IAEA, which is currently proceeding, were undertaken to emphasize the gravity with which the United States views the disruption of IAEA activities by largely unrelated and divisive political issues, and the compelling need to return the IAEA to the effective pursuit of its technical functions.

IAEA Safeguards

The international system of inspections conducted by the IAEA has been a key element in the network of arrangements on which many nations depend to reduce the risk of proliferation. During a congressional hearing in March 1982, the ACDA Director stated that, "halting the spread of nuclear explosives is inconceivable able without IAEA safeguards." Despite the successes of the IAEA in the development of an international system of safeguards, problems remain in the technical application of safeguards measures as well as a substantial gap between current resources and those required to provide the inspection coverage sought by many states. The United States has a vigorous program directed at improving the effectiveness of IAEA safeguards.

The scope and magnitude of safeguards responsibilities to be fulfilled by the IAEA have increased significantly. As reported by the IAEA in 1982, more than 1,400 inspections were made at more than 500 facilities. By way of comparison, the number of nuclear power reactors under safeguards increased from just ten in 1970 to 130 in 1981. The amount of safeguarded plutonium, mostly in spent reactor fuel and thus not in separated form where it poses a greater proliferation risk, has increased from about ten metric tons in 1975 to 76 metric tons in 1981. Along with this increase in workload, the United States has supported sharp increases in safeguards resources; the total professional safeguards staff has

grown from 100 in 1976 to 228 in 1982. The safeguards budget has increased from $6.4 million to $30.8 million during that period.

In 1982, as in previous years, the IAEA has reported that in carrying out its safeguards program the IAEA has not detected any anomaly which would indicate the diversion of a significant amount of safeguarded material, or any indication of a misuse of facilities or equipment. However, in two cases involving non-nuclear-weapons states the Agency was not in a position, pending implementation of certain technical measures proposed by the Agency, to perform adequate verification.

The United States recognizes the serious challenge faced by the international community in preventing the spread of nuclear weapons. Toward meeting this challenge the United States has continuously sought to strengthen the IAEA and its safeguards system. ACDA continues to play a key role in this effort.

The US objective on international safeguards is to achieve the application of effective and efficient IAEA safeguards on all nuclear activities in non-nuclear-weapons states throughout the world. Specifically, ACDA assists in the development of effective safeguards systems, in the assignment of sufficient resources to IAEA, and in solving technical and political problems. In addition, ACDA is looking ahead to assure that possible future safeguards problems are addressed in a timely manner. ACDA works closely with the Department of State and other U.S. agencies in the development of policy related to safeguards and in the

carrying out of the technical tasks indicated by U.S. policy positions.

Enrichment Safeguards

Due to the potential ability of uranium enrichment plants to produce highly enriched uranium suitable for direct use as material for weapons, ACDA has worked closely with the Departments of Energy and State in the development of safeguards approaches to such plants. The United States also participates in ongoing multilateral discussions through EURATOM and the IAEA with other technology holders on safeguards for enrichment plants of the centrifuge type. ACDA heads the U.S. delegation to those discussions. In all types of sensitive facilities, enrichment plants in particular, there is the added burden of satisfying the need for effective safeguards without the compromise of sensitive technology. As a result of a series of consultations among technology holders who have or will have such facilities under safeguards (United States, Japan, United Kingdom, the Federal Republic of Germany, the Netherlands and Australia) and the inspectorates of IAEA and EURATOM, the goal of a safeguards approach based on access to enrichment facilities has been achieved.

Reprocessing Safeguards

Reprocessing plants are another type of sensitive facility in which safeguards are difficult to apply. In these plants plutonium is obtained from a chemical process applied to spent fuel from either research or power reactors. The United States, Japan and the IAEA have recently concluded an effort called TASTEX

which is the acronym for Tokai Advanced Safeguards Technology Exercise. Its purpose was to develop instrumentation for increased effectiveness of safeguards at the Tokai Reprocessing Plant in Japan. ACDA has been a major participant in the Tokai safeguards project. The United States has also been actively involved in the international Working Group on Reprocessing Plant Safeguards which recently issued its final report. An ACDA safeguards expert, supported by DOE and the staff at the national laboratories, represented the United States on this project.

Heavy Water Safeguards

Some years ago, ACDA anticipated the need to develop safeguards procedures for heavy water production plants. Results of the ACDA-sponsored research were provided to the IAEA and were used in the negotiations between the IAEA and Argentina. The agreement from these negotiations will bring a heavy water production facility under safeguards for the first time.

Reduced Enrichment for Research and Test Reactors Program

Another area of proliferation concern is the widespread use of highly enriched uranium (HEU) in research reactors. Several years ago the Department of Energy undertook a program to redesign cores and fuel elements of research reactors so they could utilize low enriched fuel (less than 20% U-235) instead of highly enriched uranium which could be used in nuclear explosives. This is called the program for Reduced Enrichment for Research and Test Reactors. ACDA has been active in encouraging participation

in this program and has provided technical expertise in specific cases.

Remote Continual Verification Program

In 1982, ACDA continued its efforts to promote the concept of using a central computer facility to monitor the status of safeguards sensors located in nuclear facilities worldwide. This program of REmote COntinual VERification (RECOVER) has been at the forefront of new concepts for IAEA safeguards. A test of a prototype system located at the IAEA headquarters which used existing public international communications networks was successfully completed. Further reliability testing of components and applications studies are needed before the RECOVER concept can be introduced as a part of the IAEA's nuclear materials safeguards program. To illustrate the technical feasibility of remote monitoring for additional arms control agreements, the RECOVER concept was also displayed at the Second Special Session on Disarmament at the United Nations in New York in the summer of 1982. President Reagan was given a demonstration of the system at that time.

Transportation by Sea Verification Program

As civil nuclear power programs in the industrial states mature, the transportation of plutonium, either contained in or separated from spent nuclear fuel, is expected to increase. Of particular concern is the shipment of such material on the high seas. Consequently, it is important to have in place the

technical and institutional measures required to provide adequate physical protection and accounting for such materials. Using the technology for remote verification developed in the RECOVER program, ACDA, in cooperation with the Department of State, the Department of Defense, the Nuclear Regulatory Commission, and the Japan Atomic Energy Research Institute, is sponsoring the TRANsportation by SEA VERification (TRANSEAVER) project. The TRANSEAVER system will use satellite communications and RECOVER sensors and encryption algorithms to remotely monitor the location and security status of nuclear cargo on the high seas on a continuous basis. Such a capability will be an important component of physical security measures required to ensure the safety of nuclear material in transit on the high seas.

U.S. Voluntary Safeguard Offer

To set a good example of cooperation between a member state and the IAEA in the application of safeguards, ACDA has focused on the opportunity afforded by the U.S. voluntary offer for the implementation of safeguards in the United States. Under this offer, four U.S. facilities have been selected by the IAEA for application of safeguards. ACDA worked with the Departments of State and Energy and the Nuclear Regulatory Commission in ensuring proper implementation of the safeguards agreement and in negotiating facility attachments which entered into force during 1982. The most significant of these four facilities from the safeguards point of view is the Exxon fuel fabrication plant. ACDA entered

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into a contract with Exxon to document the actual implementation of safeguards to show that through cooperation between facility operators and the IAEA, safeguards can be carried out effectively and efficiently without undue burden on the operator.

Standing Advisory Groups on Safeguards Implementation

In 1975 the IAEA established a Standing Advisory Group on Safeguards Implementation (SAGSI). An ACDA safeguards expert serves as the U.S. representative on SAGSI. The group has made valuable contributions to the safeguards system through development of guidelines for goal quantities and timely detection of diversion. In 1982, the group began examination of how such factors as the fuel cycle of a state might be used to influence safeguards inspection strategies.

Program of Technical Assistance to Safeguards

An essential part of ACDA's efforts in achieving effective safeguards is the guidance provided for the U.S. Program of Technical Assistance to Safeguards (POTAS). POTAS has provided basic technical support to the IAEA since 1975. The objective of the program is to ensure that there are no technical impediments to the implementation of IAEA safeguards. Specific technical areas addressed by the program are measurement technology, safeguards training, safeguards systems design and evaluation, accounting and inspection data processing and surveillance equipment development. In 1982, the major thrust of the program has been in the implementation of methods and techniques already developed.

Action Plan Working Group

In the Action Plan Working Group, ACDA, along with the Department of State, the Department of Energy and the Nuclear Regulatory Commission, agreed upon a number of priority activities for strengthening safeguards. Procedures for coordinating U.S. preparation for and participation in IAEA safeguards meetings were implemented. Also during 1982, the Working Group played a major role in promoting the view that the IAEA safeguards budget be excepted from the U.S. policy of zero growth for international agencies. An ongoing benefit of the Working Group is to ensure that duplication of IAEA support efforts is avoided.

The Safeguards Evaluation Section of the Department of Safeguards in IAEA is central to the management function of improving the effectiveness of safeguards. ACDA has been assisting the IAEA in improving its internal procedures and practices for evaluating safeguards implementation and safeguards effectiveness. A proper appreciation of the strengths and weaknesses of safeguards is an essential element of improvement programs. ACDA safeguards experts have worked as cost-free consultants directly with the IAEA staff.

Treaty on the Non-Proliferation of Nuclear Weapons

The Treaty on the Non-Proliferation of Nuclear Weapons (NPT) is the fundamental instrument of U.S. and international non-proliferation policy. In a speech to the 1982 United Nations General Assembly, the ACDA Director called the NPT "indispensable"

in internaticnal efforts to prevent the proliferation of nuclear weapons, and said it deserved continued broad support.

Key provisions of the NPT include a pledge by the non-nuclear weapon states not to manufacture or acquire nuclear explosive devices. Further, they agree to international verification of their obligation through the application of IAEA safeguards on all of their peaceful nuclear activities. Nuclear weapon states party to the NPT (United States, United Kingdom and the Soviet Union) pledge not to transfer nuclear explosive devices to any country and not to assist any non-nuclear weapon state in the manufacture or acquisition of nuclear explosive devices. They also pledge to pursue actively good faith negotiations on nuclear disarmament. All parties to the NPT agree to require IAEA safeguards on certain items of nuclear material and equipment exported to non-nuclear weapon states.

In 1981 Egypt became a party, and during 1982 four additional states became parties to the NPT -- Papua New Guinea, Nauru, the Socialist Repubic of Vietnam and Uganda -- for a total of 119. The widespread acceptance of the NPT continues to grow; more countries have joined the NPT than any other multilateral arms control treaty.

The United States grants some degree of recognition to a country's status vis-a-vis the NPT by permitting liberalized procedures for approving certain exports to such states, with a few exceptions in the regions of tension. This Administration's commitment to restoring its image as a reliable supplier of

nuclear materials and equipment will also help to promote further the U.S. obligation under Article IV of the NPT to assist the peaceful nuclear programs of other NPT parties.

The United States takes seriously its responsibilities under Article VI to engage in good faith negotiations on nuclear disarmament. As mentioned elsewhere in this report, President Reagan provided ample evidence again in 1982 of his commitment to nuclear arms control negotiations with the Soviet Union.

The United States supports universal adherence to the NPT, and ACDA has principal responsibility for maintaining an active program to encourage non-parties to join the Treaty.

The Treaty for the Prohibition of Nuclear Weapons in Latin America

The Treaty for the Prohibition of Nuclear Weapons in Latin America, also known as the Treaty of Tlatelolco, was the first Treaty to seek to establish a nuclear weapons free zone in any populated region of the world. The Treaty is currently in force for 22 Latin American and Caribbean countries. Only four countries, Argentina, Brazil, Chile and Cuba, have not completed the process for adhering to the Treaty.

In addition to the main part of the Treaty which prohibits the development or acquisition of nuclear weapons by any means, the Treaty has two protocols which call on nations outside the region to commit themselves to certain responsibilities respecting the objectives of Tlatelolco. Protocol I calls on states with international responsibility for territories within the zone to

apply the denuclearization provisions of the Treaty to those territories. Protocol I is in effect for Great Britain, the Netherlands and the United States. France, the only other state with responsibility for territories within the region, has signed but not yet ratified Protocol I. Protocol II is the only post-World War II arms control agreement in force for all five nuclear-weapon states (France, Great Britain, China, the Soviet Union and the United States) and calls on these nations not to undermine the intentions of the Treaty nor to use or threaten to use nuclear weapons against states party to the Treaty.

The United States strongly supports the non-proliferation goals and objectives of the Treaty of Tlatelolco and will continue to seek full adherence to the Treaty and Protocols by those states which have not yet completed their adherence to it. The Treaty is an important example of what can be accomplished on a regional basis to enhance security and to promote non-proliferation and serves as a potential model for what might be accomplished in other regions of the world where appropriate interests and conditions for a nuclear weapons free zone exist.

Conference on Non-Proliferation Policy

In response to President Reagan's interest in giving priority attention to non-proliferation, and as a result of the ACDA Director's firm belief that a searching examination of the problems of non-proliferation was necessary, ACDA organized a conference in 1982 to discuss non-proliferation and nuclear cooperation issues. The conference entitled "Non-Proliferation: Policy, Options, and

Prospects" brought together a number of foreign policy specialists representing government, academia and the private sector to exchange ideas on non-proliferation issues. The conference focused on four regions -- the Middle East, Latin America, East Asia, and South Asia -- and on the development and implementation of non-proliferation policy in these regions. The discussions were wide-ranging and included suggestions on policy development with regard to improving existing non-proliferation measures (e.g, enforcement and adequacy of safeguards agreements), as well as recommendations for enhancing security arrangements in these regions. Overall, the conference proved invaluable as a forum for the exchange of views in the non-proliferation field and provided an opportunity for a review and in-depth discussion by foreign policy experts of existing and possible new policy approaches.

Country Issues

While acceptance of international norms against the proliferation of nuclear explosives is widespread, there are a few regions and countries where the potential for proliferation still poses a major challenge to regional and international stability. These regions include countries which have been unwilling to accept the NPT or other obligations proscribing nuclear explosives; or even to accept IAEA safeguards on all nuclear facilities as evidence of the claimed peaceful intent of their nuclear programs. Further, these are also regions where security concerns are high and where there is the potential for nuclear competition between states in

the region. During 1982, there were several developments related to these regions.

The war between the United Kingdom and Argentina over the Falkland/Malvinas Islands prompted some consideration of how much more serious a threat to international security this conflict would have posed had nuclear weapons been introduced. This served to reemphasize the importance of promoting the full entry into force of the Treaty of Tlatelolco. Of course, nuclear weapons were not introduced in any event; but it is the view of the United States that the security of Latin America would be served by such a possibility's being banned by international treaty.

Events in the Middle East during 1982 reinforced the traditional view of an extremely volatile region. President Reagan's September 1 speech, which outlined a plan for permanent peace in the Middle East, offers the best opportunity for ensuring over the long run that nuclear weapons are not introduced into the region. Other important efforts include United States support for acceptance throughout the region of the NPT and IAEA safeguards, as well as for the exploration of ways to make progress toward the establishment of a nuclear weapons free zone that would be consistent with overall U.S. and regional security interests.

South Asia also continued to be the focus of U.S. concern over the potential for proliferation. Both Prime Minister Gandhi of India and President Zia of Pakistan visited President Reagan during 1982. Prime Minister Gandhi's visit led to a resolution of

a longstanding dispute between the United States and India over the supply of nuclear fuel for the U.S.-built Tarapur reactors. Resolution of this issue will improve our ability to have a dialogue with India on nuclear issues. President Zia's visit symbolized the reinvigoration of U.S.- Pakistani relations and the resultant improvement in the security situation in that area of the world. These important objectives would be seriously jeopardized by a Pakistani effort to acquire nuclear explosives. Both India and Pakistan are aware of U.S. views about the harmful effects on regional security of nuclear arms competition between them. The recent meeting between Gandhi and Zia offers some hope that these countries can deal with the difficult issues that have traditionally divided them, and create the type of regional environment that dampens interest in acquiring nuclear weapons.

Finally, there was considerable attention directed at relations between the United States and South Africa during 1982 -- including U.S. nuclear export policies toward that country. This Administration has continued the policy of urging South Africa to accept the NPT and IAEA safeguards on all its nuclear facilities, and will not engage in significant civil nuclear cooperation with South Africa until it takes such steps. However, it is important to generate a trust between the United States and South Africa and that the United States not totally isolate South Africa in the area of civil nuclear cooperation and be willing to export non-sensitive items that pose no proliferation risk. In compliance with U.S. law, no nuclear material or equipment which received an

export license issued by the Nuclear Regulatory Commission has been exported to South Africa. No such exports will be permitted until South Africa meets the conditions of the Atomic Energy Act, as amended, which requires the application of safeguards to all nuclear activities in a state receiving U.S. nuclear exports. Such discussions need not, and certainly do not, imply any acceptance of South Africa's apartheid system. But it complements our attempt to induce South Africa to recognize that its security and that of the region would best be served by its renouncing nuclear explosives and joining the NPT.

SPACE POLICY AND ISSUES

ACDA participated in the formulation of space policy which culminated in President Reagan's announcement of a U.S. National Space Policy on July 4, 1982. With regard to arms control, this policy states:

> The United States will continue to study space arms control options. The United States will consider verifiable and equitable arms control measures that would ban or otherwise limit testing and deployment of specific weapons systems, should those measures be compatible with United States national security.

ACDA participates in the Senior Interagency Group (SIG) on space established under this policy, as well as in the subordinate groups established under the SIG. ACDA also participates in other interagency bodies involved in studying outer space arms control policy.

Several existing treaties limit arms in outer space or contain certain provisions relevant to outer space arms control. The most important are the 1967 Outer Space Treaty, the Limited Test Ban Treaty, and the Anti-Ballistic Missile Treaty. Further arms control measures beyond existing international law remain under study.

The 1981 session of the UN General Assembly passed two resolutions on outer space, both of which requested the Geneva-based Committee on Disarmament to take up the subject of outer space arms control. The issue was subsequently discussed in the Committee during both the spring and summer rounds of the 1982 session, with the United States taking an active part. The U.S. Representative

to the Committee on Disarmament, Ambassador Louis G. Fields, Jr., in a statement on September 2, 1982, stressed the importance of the existing body of international law affecting arms control in outer space, the contributions to stability made by satellites in the monitoring of arms control agreements and in early warning, and U.S. willingness to examine possible further arms control measures affecting outer space.

At the UN-sponsored UNISPACE Conference in Vienna (the Second UN Conference on the Exploration and Peaceful Uses of Outer Space) a number of countries insisted on discussing the militarization of outer space, although the issue was not on the aggnda. The United States participated in drafting a compromise text in the final report of the conference which urged all nations to contribute to the goal of preventing an arms race in outer space, encouraged all states to adhere to the Outer Space Treaty, and suggested that the UNGA and the CD give high priority to this issue. The U.S. delegation, which consisted of individuals from government (including ACDA) and the private sector, stressed the large degree of international cooperation in space and the efforts the United States is making to bring the benefits of space to people around the world. The United States proposed several initiatives, principally intended to help developing countries participate more fully in the use of outer space.

Recognizing the growing significance of the outer space arms control issue, ACDA and NASA co-sponsored a symposium marking

the fifteenth anniversary of the Outer Space Treaty on September 23, 1982. Senior officials from government and industry, academic representatives, and several present and former astronauts met to discuss the role of the Outer Space Treaty in promoting international order in the use of outer space, as well as future activities in space and the U.S. space program.

Speakers at the symposium stressed the U.S. commitment to the exploitation of space. William Clark, the President's National Security Advisor, noted that, "Our space policy acknowledges the importance of space activities in pursuit of our national security goals," and reiterated the National Space Policy's call to continue to study space arms control options.

VERIFICATION AND COMPLIANCE

Verification Requirements

Maintaining a flow of information necessary to assure each side that the other is complying with arms control agreements has become a formidable and troublesome task. National technical means of verification have never been fully satisfactory with regard to compliance with agreements about chemical and biological weapons. Such compliance as there is in those areas is assured mainly by the threat of retaliation. The threat of retaliation is also a major component in the attempt to enforce nuclear weapons agreements, although in that realm national means of verification and some cooperation between the parties have been more helpful. Assessments regarding verifiability of and compliance with arms control agree-ments fall within the aegis of several agencies of the government. Within ACDA, they are the task of the Verification and Intelligence Bureau. Section 37 of the Arms Control and Disarmament Act provides for reports by the Director to Congress of significant degradation or alteration of the capacity of the United States to verify the various components of agreements and treaties. During 1982, several requests for Section 37 reports were received from members of Congress and in one case from a committee of the Congress.

The purpose of verification is not only to detect and deter treaty violations, but also to build domestic and international confidence in the viability of arms control agreements. At times in the past, doubts existed that verification efforts effectively served the purpose of detecting and deterring violations. These

efforts did not always convince the public that arms control agreements were in fact viable.

From the arms control point of view, verification efforts serve two purposes: first, to provide descriptions of the degree of verifiability of current and possible future arms control agreements in order to judge whether or not provisions are effectively verifiable and, second, to convey information that may relate to possible noncompliance so that a judgment can be made whether one should be assumed to have occurred.

Decision-makers must, of course, consider other factors in making their judgments. For example, the judgment of the effectiveness of verification is a net judgment of national interest and is likely to be based not only on a description of verifiability but also on such factors as national security risk and foreign policy objectives.

The principal verification and compliance tasks are:

- ensure that proposed agreements are verifiable;
- provide verifiability descriptions that are inputs needed for judging effectiveness;
- present compliance/non-compliance data consistent with the need to judge whether a violation has occurred;
- evaluate the precedential nature of verification-related treaty provisions, such as on-site inspection, prior notification, data exchange, etc., and ensure that they are given proper weight;

- ensure that arms control needs are effectively projected for purposes of intelligence resource allocation and that these needs are properly considered in the resolution of possible conflicting views of priorities for these resources; and
- develop a methodology that is generally applicable for addressing verification and compliance questions.

It is clear that verification is an integral part of the arms control process. At the same time, choices necessarily arise where some of these criteria are in conflict. For that reason, and because there are a significant number of verification and compliance issues that cut across treaty areas, ACDA has a verification organizational entity independent of those most directly concerned with the pursuit of arms control agreements.

Methods of Verification

The principal part of the verification function is accomplished by National Technical Means (NTM), a term which is used to refer to certain intelligence collection capabilities. In order to assure that these capabilities are used with maximum effectiveness for arms control verification, ACDA works closely with the Intelligence Community in developing effective institutional arrangements.

In addition to the NTM, a great deal of effort both in study and in negotiation is going into the development of "cooperative measures." Cooperative measures refers to measures which are to be taken jointly by the Soviet Union and the United States to help ease the verification task.

Both START and INF will pose difficult verification problems. This is particularly true for INF with regard to verifying missile range capability and distinguishing permitted missiles from prohibited ones and, for START, in determining total numbers of missiles and warheads and missile throw-weight. Cooperative measures might assist in solving these difficult problems.

Cooperative measures that would be useful for INF and START include data exchange; prior notification of removal, dismantling and destruction; and on-site presence to control and count weapons and equipment.

The above list is intended to be representative rather than comprehensive in light of the present uncertainties in agreement provisions.

Standing Consultative Commission (SCC) and ABM Treaty Review

The Standing Consultative Commission was formally established by a Memorandum of Understanding between the United States and the Soviet Union on December 21, 1972. The Commission is a joint U.S.-USSR body charged with promoting implementation of the objectives and provisions of the ABM Treaty and the Interim Agreement on Strategic Offensive Arms, both of May 26, 1972, as well as of the Agreement on Measures to Reduce the Risk of Outbreak of Nuclear War which was negotiated during SALT I, and was signed and entered into force on September 30, 1971.

Generally, the Commission is responsible for considering questions of compliance with obligations assumed by the United States and the Soviet Union under those agreements, for reconciling any misunderstandings or uncertainties arising in the performance

of those obligations, and for considering proposals for increasing the viability of those agreements. These responsibilities of the SCC are spelled out in detail in Article XIII of the ABM Treaty.

On May 30, 1973, the SCC convened its first session, and brought into force the Regulations which govern its internal operation. Those Regulations provide, among other things, that the proceedings of the Commission shall be confidential. This has facilitated the direct and frank exchanges concerning strategic weapons systems and other matters related to SALT agreement implementation which are necessary for the SCC to carry out effectively its assigned responsibilities. Since both the U.S. and Soviet Components of the Commission operate under instructions and guidance from the highest levels of their governments, it is clearly understood that each SCC Commissioner keeps his government fully informed in accordance with the pertinent procedures and processes of that government.

The Commission holds sessions in Geneva at least twice annually, at times mutually agreed between Commissioners, and may be convened for additional sessions at the request of either Commissioner. Between sessions, the Commissioners may communicate with one another through diplomatic channels concerning any matters within the competence of the Commission.

Under its charter, both the United States and the Soviet Union raise for discussion in the SCC questions related to implementation of, and compliance with, the provisions of the

ABM Treaty, the Interim Agreement, and the Agreement on Measures to Reduce the Risk of Outbreak of Nuclear War. The SCC meetings have shown that the Commission performs an important service by bringing U.S. and Soviet officials together regularly to discuss such questions, to negotiate implementation procedures, such as those which regulate dismantling or destruction of excess or prohibited weapons, and to discuss understandings which enhance the viability of the agreements.

During 1982, the SCC met for two regular sessions. The first regular session of 1982 (SCC-XXI) was held from March 6 to April 26; the second regular session (SCC-XXII) began on September 14 and recessed on December 15.

Also in 1982, the SCC held an additional session (SCC-XXIII) to conduct the second five-year review of the ABM Treaty. This sesson began on November 9 and ended on December 15. During the course of this review, the Parties carefully examined the Preamble and Articles of the Treaty and Protocol and evaluated their implementation during the period covered by the review. Each Party reaffirmed its commitment to the aims and objectives of the Treaty and to the process of consultation within the framework of the SCC.

The United States and the Soviet Union are each represented on the SCC by a Commissioner and Deputy Commissioner assisted by such staff and advisers as each government deems necessary. Richard H. Ellis, General, USAF retired, was appointed as an ACDA officer and designated U.S. Commissioner on March 10, 1982.

General Ellis was nominated for the rank of Ambassador and was confirmed by the U.S. Senate on August 17, 1982.

All information related to performance of obligations under the provisions of those agreements within the competence of the SCC is carefully analyzed by interagency policy advisory groups within the National Security Council system, and recommendations are then made on possible questions for discussion in the SCC. Currently these groups include the Standing Consultative Commission Working Group of the START Interagency Group, which is chaired by ACDA and in which representatives of the Department of State, the Office of the Secretary of Defense, the Organization of the Joint Chiefs of Staff, the Central Intelligence Agency and the National Security Council also participate. The United States Component of the SCC operates under instructions approved by the President. Day-to-day support and guidance during SCC sessions are provided through a Backstopping Committee, also chaired by ACDA, whose composition is similar to that of the Working Group.

ACDA continued its participation in SCC activities, and its support to the SCC, during preparation for and conduct of the three sessions of the Commission held during 1982. The Agency provided the U.S. Component of the Commission a Washington base of operations, and members of the ACDA staff played a leading role in interagency preparation for the sessions of the SCC, in the backstopping process, and as members of the U.S. Component of the Commission during its sessions in Geneva.

Antarctic Treaty

The Antarctic Treaty, signed by 12 countries on December 1, 1959, is in part an arms control agreement. It serves to prevent the expansion of "any measures of a military nature" into the Antarctic. It is unique in that it establishes for each signatory the right of unilateral inspection of all stations, installations, and equipment to ensure treaty compliance. This is the only Treaty under which on-site inspections of Soviet installations have been conducted.

By agreement with the Department of State, which has responsibility for coordinating Antarctic policy, the Arms Control and Disarmament Agency takes the lead in planning, managing, and evaluating inspections by U.S. observers. A member of the ACDA staff is routinely a part of the observer team.

Historically, the United States inspects foreign Antarctic stations on an average of once every three years. Typically, U.S. inspections have been modest and involved the inspection of only a few foreign stations. During the past year, however, plans have been developed and are now approved for the most extensive inspection to be undertaken in over a decade. The purpose of the inspection will be to ensure that the Antarctic is used exclusively for peaceful purposes, that it does not become the scene or object of international discord, and that no military measures (including weapons testing) or nuclear disposal are taking place. When this inspection is conducted in February-March 1983, U.S. inspectors will visit at least twice the number of stations visited on any

recent inspection. Some of the stations have never been inspected before and many others have not been visited since the 1960s.

CW/Toxin Use and BWC Compliance

Serious concerns regarding compliance by several states with the Geneva Protocol (which prohibits the use of chemical, biological and toxin weapons in war) and the Biological and Toxin Weapons Convention (which prohibits production, stockpiling and transfer of biological and toxin weapons) continued during 1982. ACDA participated in preparing a Special National Intelligence Estimate and its update, and unclassified reports to Congress documenting U.S. evidence of use of prohibited lethal chemical agents and toxins as methods of warfare in Laos, Kampuchea, and Afghanistan, and in briefing friends and allies on the evidence. Considerable effort was directed to encouraging other nations to conduct their own investigations and to submit evidence to the United Nations Group of Experts charged with investigating the problem.

The UN Group of Experts completed its two-year investigation and concluded that "whereas it could not state that the allegations had been proven, nevertheless it could not disregard the circumstantial evidence suggestive of the possible use of some sort of toxic chemical substances in some instances." There continues to be strong support in the UN for resolutions calling on treaty parties to abide with applicable international agreements on chemical, biological, and toxin warfare activities as demonstrated by the favorable vote on the New Zealand resolution of December 8 on CW use. ACDA representatives participate actively in investigations

regarding possible CW and toxin use in several regions of conflict and ACDA has two representatives appointed to the CBW/Toxin Intelligence Use Working Group, established in June 1982 by the Director of Central Intelligence.

Evidence of Soviet noncompliance with the Biological and Toxin Weapons Convention has continued to increase. The use of prohibited toxins indicates violation of the ban on their production and transfer. Activities at biological warfare-related facilities, particularly the one at Sverdlovsk where an anthrax outbreak occurred in April 1979, also have raised serious questions. Efforts continue to advance measures designed to cause the Soviets to comply with existing agreements.

Threshold Test Ban Treaty and Peaceful Nuclear Explosions Treaty

The Treaty on the Limitation of Underground Nuclear Weapon Tests, also known as the Threshold Test Ban Treaty (TTBT), was signed in July 1974. It establishes a nuclear "threshold," by prohibiting weapon tests having a yield exceeding 150 kilotons. In preparing the TTBT, the United States and the Soviet Union recognized the need to establish an appropriate agreement to govern underground nuclear explosions for peaceful purposes (PNE's). Such an agreement to limit PNE's is needed because there is no essential distinction between the technology of a nuclear explosive device which would be used as a weapon and the technology of a nuclear explosive device used for a peaceful purpose. The Treaty on Underground Nuclear Explosions for Peaceful Purposes, also known as the Peaceful Nuclear Explosions Treaty

(PNET), was signed in April 1976. This treaty limits individual PNE's to 150 kilotons, in a manner consistent with the TTBT limits on weapon tests.

In 1976 the United States and the Soviet Union each stated that it would observe the 150-kiloton limit of the TTBT and the PNET, pending their entry into force, as long as the other side did so. Since that time questions in the United States have arisen on several occasions regarding Soviet observance of the 150-kiloton limit. In light of these questions, the United States has decided it will seek discussions with the Soviet Union regarding means for improving the verifiability of these treaties. In the meantime, the United States will continue to observe the 150-kiloton limit of these treaties, provided the Soviet Union does so.

Limited Test Ban Treaty

The Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water, also known as the Limited Test Ban Treaty (LTBT), was signed in August 1963, and ratified in October 1963. One hundred and eleven nations have now ratified this treaty. This treaty prohibits the following activities:

- Nuclear explosions in the atmosphere; beyond its limits, including outer space; or under water, including territorial waters or high seas.
- Underground explosions if they cause presence of radioactive debris outside territorial limits of the state that conducted the explosions.

Since 1963, there has been no indication of any Soviet testing in the prohibited environments, which are covered by the principal provision of the LTBT. That is, there has been no indication of any tests conducted by the Soviet Union in the atmosphere, in outer space or under water.

There have been a number of occasions since 1963 when radioactivity from ventings of Soviet underground nuclear tests has been detected outside the Soviet Union. When such events have occurred we have raised the issue with the Soviet government, stressing the need for strict compliance with the treaty.

ARMS AND TECHNOLOGY TRANSFER

During the year 1982, ACDA continued to play an active role in the formulation and implementation of U.S. policy in the closely related areas of arms and technology transfer.

Arms Transfer

The framework within which the United States provides conventional arms to friends and allies to augment their defensive capabilities was established by President Reagan in his policy statement of July 8, 1981. This policy views transfers of conventional arms as an essential element of our global defense posture and an indispensable component of our foreign policy. Used judiciously, arms transfers can: (1) help deter aggression by enhancing the state of readiness of allies and friends; (2) improve the ability of the United States, in concert with its friends and allies, to respond to threats, thereby strengthening our mutual security relationships; (3) demonstrate U.S. determination not to allow its friends and partners to be militarily disadvantaged; (4) foster regional and internal stability; and (5) help to enhance U.S. defense production capabilities.

Requests for arms are examined on a case-by-case basis. Each request is reviewed primarily in terms of its net contribution to enhanced deterrence and defense. A wide range of factors, including arms control factors, are considered in evaluating each prospective transfer. Among those factors given due consideration are the following:

- the degree to which the transfer responds appropriately to the military threats confronting the recipient;

- whether the transfer will enhance the recipient's capability to participate in collective security efforts with the United States;

- whether the transfer will promote mutual interests in countering externally supported aggression;

- whether the transfer is consistent with U.S. interests in maintaining stability within regions where friends of the United States may have differing objectives;

- whether the transfer is compatible with the needs of U.S. forces, recognizing that occasions will arise when other nations may require scarce items on an emergency basis;

- whether the proposed equipment transfer can be absorbed by the recipient without overburdening its military support system or financial resources; and

- whether any detrimental effects of the transfer are more than counter-balanced by positive contributions to U.S. interests and objectives.

Special scrutiny is given to requests for coproduction, or the transfer of sensitive or advanced technology, taking into account economic and industrial factors for both the United States and other participating countries, the importance of arms cooperation with NATO and other close friends and allies, potential third party transfers, and the protection of sensitive technology and military capabilities. Recognizing that first-line systems may not be appropriate to the needs of many countries, special consideration is also given to lower-cost alternatives, including adaptations of military equipment for sale abroad.

To ensure that arms control factors are given thorough consideration in the implementation of the policy, ACDA is actively involved with the Departments of State and Defense and other concerned agencies in the arms transfer decision-making process. Pursuant to the Arms Export Control Act and the Foreign Assistance Act of 1961, as amended, decisions to transfer arms are coordinated with the Director of ACDA, and the Director's opinion is taken into account as to the extent to which proposed transfers might:

- contribute to an arms race;
- increase the possibility of outbreak or escalation of conflict; or
- prejudice the development of bilateral or multilateral arms control arrangements.

When requested by the Congress, ACDA, in consultation with the Departments of State and Defense, prepares on behalf of tne Administration an arms control evaluation of significant proposed transfers for which the Congress has been notified under Section 36 of the Arms Export Control Act. For example, the Agency prepared such an evaluation in February 1982 on the sale of F-16 aircraft to Venezuela. Preparation and coordination of all of these assessments are a responsibility of the Arms Transfer Division of the Nuclear and Weapons Control Bureau.

In fiscal year 1982, ACDA evaluated and rendered its opinion on 1,243 cases involving Foreign Military Sales and commercial exports license requests for military equipment. Many of these cases included the transfer of multiple items to more than one

country. The ACDA Assistant Director for Nuclear and Weapons Control is a member of the senior-level interagency Arms Transfer Management Group, which assists the Under Secretary of State for Security Assistance, Science and Technology in advising the Secretary of State on arms transfer and security assistance matters. In addition, the Agency has continued to participate actively in the two major subgroups of the Arms Transfer Management Group -- the Security Assistance Operations Committee, which addresses arms transfer policy issues, and the Security Assistance Program Review Working Group, which focuses on security assistance programs and legislation. As a member of this Working Group, ACDA participated in the development of the fiscal year 1984 U.S. security assistance program. As part of this activity, the Agency took the lead in the preparation of the statements of arms control considerations required by the Congress in conjunction with the annual security assistance program request. These statements include, for each recipient country, an analysis of the relationship between expected sales to that country and arms control efforts relating to the country, as well as an assessment of the impact of anticipated sales on regional stability.

In its efforts to employ arms transfers to foster peace and stability, the United States must counter the threat posed by Soviet expansionism. Through its direct aggression, as in Afghanistan, and its transfer of arms to surrogate countries, the Soviet Union continues to threaten the security of Third World countries and undermine regional stability. As is indicated in the two most

recent issues of the ACDA publication, World Military Expenditures and Arms Transfers, the Soviet Union was the world's largest arms exporter during the years 1978-1980. In 1980 arms sales was such an important instrument of Soviet policy that some thirty percent of the value of all of its exports to developing nations were weapons of war. This contrasts sharply with a comparable figure for the United States of less than five percent. The growth in Soviet arms exports is also reflected in the numbers of major weapons delivered to Third World countries. During the period 1976-1980, there were 6850 tanks exported by the Soviet Union versus 2295 by the United States; 3150 anti-aircraft artillery pieces versus 1895; 5485 field artillery pieces versus 3430; 9005 armored personnel carriers versus 8745; 27 major surface combatants versus 29; 56 missile attack boats versus 0; 2120 supersonic aircraft versus 915; 335 subsonic aircraft versus 395; 810 helicopters versus 425; and 15,040 surface-to-air missiles versus 8,030. Thus, the Soviet Union outpaced the United States by a considerable margin in seven of ten major weapons categories while approximating U.S. totals in the other three.

U.S. arms transfers to Europe, by assisting our allies in meeting NATO force goals, contribute to stability in the face of the Soviet military build-up. In the Middle East, U.S. arms transfers to Israel and friendly Arab states are designed to support the achievement of the twin goals of preventing Soviet domination of the region and enhancing the peace process. U.S. arms transfers help to counter direct Soviet intervention, Soviet

promotion of insurgent movements, and Soviet support for client and proxy states engaged in activities hostile to regional stability. By improving the recipients' confidence in their own security and the reliability of U.S. support, prudent arms transfers can place our friends in the region in a better position to resolve their differences and move toward a peace settlement along the lines proposed by President Reagan in September 1982. The United States remains determined to see that Israel's qualitative technological edge in the area is maintained. Requests for arms are carefully reviewed to ensure that we provide those items which help to deter Soviet or Soviet-supported aggression while at the same time avoiding transfers which will adversely affect regional stability or jeopardize the peace process.

In East Asia, U.S. arms transfers continue to be directed toward the enhancement of regional stability by assisting the Japanese Self-Defense Force, by strengthening South Korean deterrence and defense against potential aggression by North Korea, and by increasing the ability of the members of the Association of Southeast Asian Nations (ASEAN) to counter any further Vietnamese expansion in the region. With respect to China, the United States views China as a friendly, non-allied country with which we have many common interests. In recognition of this, China has been deleted from the list of countries which are denied U.S. Munitions List export licenses. With regard to Taiwan, the United States continues to provide such defense articles as may be necessary to enable Taiwan to maintain a sufficient self-defense capability,

pursuant to the Taiwan Relations Act and in accordance with the provisions of the U.S.-China Joint Communique of August 17, 1982. Transfers to Taiwan, as to other recipients, are reviewed on a case-by-case basis to ensure that they foster rather than upset regional stability.

In South Asia, U.S. arms transfers to Pakistan are designed to counter the threat to stability caused by continued Soviet occupation of Afghanistan and cross-border raids against Pakistan. To this end, we have embarked on a major program to assist Pakistan in deterring further Soviet expansionism in the region. Transfers to Pakistan have not altered the Indo-Pakistani military balance, since India continues to maintain an overwhelming qualitative and quantitative advantage over Pakistan.

U.S. arms transfers to Latin America and Africa have remained relatively modest. Transfers to Latin America have been focused on maintaining stability in the face of the threat posed by the actions of Cuba, the Soviet Union, and other Communist states in training and equipping insurgent groups. In 1981 Cuba received more Soviet armaments than in any year since 1962. In Central America, particularly in El Salvador, a major effort has been required to reduce the externally supported threat of insurgent subversion, economic sabotage, and terrorism. U.S. arms transfers are intended to help provide the stability necessary for further political, economic, and social growth. At the same time, the United States has proposed, as principles for a peaceful settlement, that the countries of Central America agree to hold free elections,

end the export of subversion, and develop verifiable limitations on imports of heavy weapons and the numbers of military advisers.

In Africa the largest U.S. arms transfers have been to Morocco and Somalia, which face threats of aggression as a result of Soviet adventurism. In the case of Morocco, U.S. transfers are intended to help in countering the threat posed by massive Soviet arms deliveries to Libya. In the past five years, the value of Soviet arms transfers to Libya totalled about $5.5 billion, clearly exceeding the defense needs of the three million Libyan people and just as clearly contributing to Polisario attacks on Moroccan forces. In Somalia, U.S. arms transfers have been directed toward maintaining stability in the Horn of Africa by deterring aggression by Ethiopia, which has acquired $1.9 billion in Soviet arms during the period 1976-1980.

The United States retains a genuine interest in arms transfer restraint and remains prepared to consider specific proposals directed toward that end. However, this restraint must be multilateral. In the absence of interest in arms transfer restraint on the part of others, the United States cannot apply restraint unilaterally to the detriment of its foreign policy and security interests. So far, there has been no interest in arms transfer limitations on the part of the Soviet Union or most of the other arms producing or recipient nations. The Soviet Union continues to use arms transfers as a major instrument for advancing its expansionist ambitions and for acquiring hard currency. In the face of these realities, the United States is committed to help its friends

and allies maintain their security, by prudent arms transfers as necessary, and through restraint mechanisms if possible.

Technology Transfer

A corollary of prudent management of conventional arms transfers is the application of effective controls over the export of civilian technol gies with potential military applicability (dual-use items). The principal rationale for strict controls on Western technology transfers to communist countries is based upon the growing evidence of Soviet efforts to acquire strategic technologies from the West, by legal means if possible, by illicit methods if necessary, for the ultimate purpose of enhancing the military capability of the Warsaw Pact.

In response to this challenge, the United States has taken the initiative in devising coordinated Western approaches to economic policies toward the East, involving tighter controls on dual-use technology transfers, harmonization of financial credits, and limits on purchase of energy supplies from the Soviet Union. Allied concern with the hemorrhage of advanced Western technology to potential adversaries has manifested itself in Allied determination to strengthen both unilateral and multilateral export control systems. Accordingly, the review of the Export Administration Act of 1979, dealing with U.S. export controls, has proceeded in parallel with the International List review of 1982/83 conducted by the Coordinating Committee (COCOM) composed of Japan and all NATO members except Iceland and Spain.

ACDA has actively supported the effort to strengthen the provisions of the Export Administration Act and to upgrade the multilateral

export control system in conjunction with our allies in COCOM. The Agency participates in interagency fora on export controls and in policy formulation as well as in the review of selected cases, particularly those cases involving possible transfers of strategic technologies to military adversaries of the United States, or those with a potentially adverse effect on arms control verification.

ACDA is represented on the interagency senior-level Advisory Committee on Export Policy (ACEP), chaired by the Department of Commerce, and its subsidiary organs, the Sub-ACEP and Operating Committee. ACDA is also represented on the new Senior Interagency Group (SIG) on the transfer of technology. This SIG was created to coordinate and review U.S. Government efforts, among some eighteen agencies, to control the transfer of militarily relevant dual-use technologies and equipment to potential adversaries. In addition, the Agency participates in COCOM-related support functions of the Economic Defense Advisory Committee (EDAC), chaired by the Department of State. In addition, the Agency is represented on the NSC Coordinating Committee on Technology Transfer, and on the Cabinet Council on Commerce and Trade when the latter deliberates on transfers of remote sensing equipment (LANDSAT). Finally, ACDA participates in the incorporation of the "militarily critical technology list," produced by the Department of Defense, into the Commodity Control List, and is a member of the interagency task force in charge of reviewing the section of the Export Administration Regulations dealing with transfers of technical data to foreign countries.

In the area of North-South transfers of non-nuclear technologies, ACDA has focused on technologies with clear military applications, such as missile and space-related technology. The Agency has participated in the interagency review of individual export cases, and in the formulation of policy regarding such exports, in order to reduce the risk of an adverse impact on regional stability. The process seeks to ensure that U.S. civil technology will be used for peaceful purposes only, and that there will be no unauthorized diversions to third countries. These efforts often complement U.S. nuclear non-proliferation efforts and, to be effective, rely on the same type of cooperation among suppliers of such technology as among suppliers in the area of international nuclear commerce.

In late 1982, in order to provide for more fully integrated management of ACDA's activities in the closely related areas of arms and technology transfer, responsibilities for both were assigned to the Arms Transfer Division of the Nuclear and Weapons Control Bureau. This change has consolidated the expertise which can be brought to bear on policy issues in these two areas and has helped to ensure a consistency of Agency positions on arms and technology transfer issues.

RESEARCH AND STUDIES

Under the Arms Control and Disarmament Act, ACDA has a broad as well as specific mandate to carry out research, development, and other studies with regard to all aspects of its mission. The development of U.S. arms control positions and the ongoing support of negotiations depend upon research and analysis generated by the Agency.

Arms Control Impact Statements

Since 1975, the Executive Branch has been required by law to submit, annually, arms control impact statements (ACIS) to the Congress along with authorization and appropriation requests for certain defense, technology and nuclear programs. Each ACIS analyzes the possible implications of these programs for their effect on arms control and disarmament policy and present and potential negotiations. In their joint foreword to the ACDA 1981 Annual Report, Representative Clement J. Zablocki, Chairman of the Committee on Foreign Affairs and Senator Charles H. Percy, Chairman of the Committee on Foreign Relations, noted ACDA's timely submission of ACIS and pointed out that the statements provided, ". . . valuable arms control information to the American people . . . ." No other nation has such a formalized governmental effort to relate weapons procurement and technological developments to arms control in a systematic way. ACDA works closely with the other interested agencies in this effort to ensure that arms control considerations remain an integral part of our national security policy planning process.

World Military Expenditures and Arms Transfers

The World Military Expenditures and Arms Transfers (WMEAT) reports include data on 145 countries. The statistical tables are designed to provide readers with country and regional data for each year of a ten-year period on military expenditures, population, and military forces. Ratios of key data are used to analyze the economic burden of military expenditures. Data on the international trade in arms are also included in the reports. These data describe the direction and volume of the arms trade over ten-year periods. The reports also depict cumulative five-year data on arms transfers from specific suppliers to importing countries along with cumulative five-year data on the composition of the trade.

The thirteenth edition of the Agency's annual compendium on military expenditures and arms transfers was published in April 1982. It covered the decade from 1970 through 1979. Over 13,000 copies were disseminated to readers throughout the world. The fourteenth edition, World Military Expenditures and Arms Transfers, 1971-1980, has been drafted and publication is scheduled for early 1983.

These reports point out that world military expenditures have continued their upward momentum. For example, as will be shown in the fourteenth edition, the 1980 world military expenditures total exceeded $591 billion;* in 1971, the total was $470 billion. The top ten countries (Soviet Union, United States, China, West

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* All dollar figures are based on 1979 U.S. dollars

Germany, France, United Kingdom, Saudi Arabia, Japan, Poland, and Italy) accounted for 79 percent of the world total. The latest report estimates that 5.4 percent of the output of the world's goods and services in 1980 was directed to military requirements.

The world trade in arms also continued its upward spiral; in 1980 arms valued at $23.7 billion were exported as compared to only $10.9 billion in 1971. For the third straight year, the Soviet Union was the world's largest arms exporter, leading the United States in the total value of 1980 arms exported, $8.0 billion to $6.0 billion. The share of world arms exports from countries other than the Soviet Union and the United States is also increasing, for example, from 21 percent of the total in 1971 to 41 percent in 1980.

Economic Research

In addition to the economic support provided in the development of World Military Expenditures and Arms Transfers, economic research was also directed to an analysis of the Soviet economy based on an updating of the Soviet 1972 Input-Output Tables, and to the support of UN studies on disarmament and development and on the reduction of military budgets. An ACDA computer model was used to analyze the U.S. and Soviet economic systems on a comparable basis. This capability permits estimates of the impacts of proposed bilateral arms control initiatives on the respective economies. The model has also made possible analyses of the effects of endogenous economic forces on Soviet military expansion.

Operations Analysis Studies

A number of operations analysis studies have been conducted both by the "in-house" staff and with contractor support.

The principal studies were undertaken in support of Strategic Arms Reduction Talks (START). A methodology together with the various measures of the effectiveness of strategic forces were developed in order to evaluate potential START options. This work led to the Force Evaluation Model called FOREV, which permits the rapid simulation of strategic nuclear war and the calculation of the strategic balance.

As a corollary to the START analysis, a number of studies were performed and earlier studies were extended and reviewed to investigate the impact of new and potential future developments in both U.S. and Soviet strategic forces. These studies included a variety of topics such as: the deep underground basing of strategic weapons; the barrage potential of U.S. and Soviet ICBMs; the effect of MX silo hardening on U.S. ICBM force survivability; the effect of MX on Soviet ICBM vulnerability; and bomber penetration analyses. Additional work on population vulnerability under a variety of attack scenarios and civil defense activities was also done complementing work accomplished in previous years on the subject.

Some studies were also performed in support of the INF negotiations. This work included topics such as counterforce implications of European Long-Range Theater Nuclear Forces and comparison of land-based nuclear missiles by range. Studies were

also completed on estimation procedures of the yield of underground nuclear tests in support of verification of the Threshold Test Ban Treaty.

Two computerized information retrieval systems were developed. These systems permit rapid retrieval of details of prior arms control work and negotiations from the government's voluminous historical files. The ability to retrieve readily such data and information is useful in arms control analyses and negotiations. Through the use of these computerized systems, it is not only possible to retrieve pertinent documents, but it is also possible to search the texts of telegrams which report the substance of negotiations. It is, therefore, possible rapidly to discover precisely what we and the Soviet negotiators said on a specific subject five or ten years ago. This capability will be at the disposal of officers supporting the U.S. negotiating delegations and is expected to be useful in the START and INF negotiations.

PUBLIC INFORMATION

The Public Affairs Unit of the Office of Congressional and Public Affairs carries out the Agency's legislative mandate for dissemination and coordination of public information concerning arms control matters. It is responsible for all media contacts, press guidance on questions relating to Agency business, the planning and coordination of speaking engagements by ACDA officials, and the operation of the ACDA Library and Historical Unit. In addition, the Unit also prepares publications for public distribution, such as Arms Control and Disarmament Agreements, which contains the texts of major agreements in which the United States has participated since World War II and brief histories of their negotiation, and Documents on Disarmament, an annual compilation of official documents, of both U.S. and foreign origin, including treaties, agreements, laws, proposals, resolutions, declarations, communiques, reports, speeches, and statements.

In responding to the Congressional mandate to disseminate and coordinate public information concerning arms control matters, senior Agency officials delivered many speeches on arms control policies to prestigious audiences both in the United States and throughout the world. Numerous interviews with Agency officials by the print and electronic media supplemented their formal speeches and testimonies.

In addition, the Public Affairs Unit itself conducts a speakers' program to respond to the many public requests to hear presentations on the Administration's arms control policies.

The Agency's speakers also assist the State Department's Office of Public Affairs in implementing its programs. Throughout 1982, speakers from ACDA were travelling through the country to speak on arms control matters, or were delivering such presentations at the Agency in response to numerous requests from academic and professional institutions in the Washington, D.C. area.

Finally, responsibilities included the administration of the Hubert H. Humphrey fellowship program. In 1978, ACDA established this program to encourage research in arms control studies and assist in the training of young professionals. Named after one of ACDA's "founding fathers," the late Senator Hubert H. Humphrey, the program involves one-year fellowships in support of doctoral dissertation research in the field of arms control and disarmament. Candidates for law degrees (J.D. or higher) are also eligible for the fellowships.

Four fellowships were awarded in 1982 in the fifth round of competition. Thirty-five fellowships have been awarded since the program's inception.

THE CONGRESS AND ACDA

ACDA has supported the fullest possible exchange between the Congress and the Administration on START and other negotiations with the Soviet Union. ACDA views consultations with the cognizant Committees as the most effective method for keeping the Congress informed of our planning and our negotiating efforts, and for receiving first hand the comments and suggestions of Committee members. To this end, the ACDA Director, Ambassadors Rowny and Nitze, and others met frequently with Committee leadership and individual members. Agency officials also met with members and congressional staff periodically to discuss the status of negotiations.

In addition to the Strategic Arms Reductions Talks, the Agency has had extensive consultations with Congress on other ongoing negotiations described earlier in this report: i.e., Intermediate Range Nuclear Forces and Mutual and Balanced Force Reductions. A number of other arms control matters raised in fora such as the Committee on Disarmament, the United Nations General Assembly, the Conference on Security and Cooperation in Europe and the United Nations Disarmament Committee (UNDC). Other ACDA activities -- including effective implementation of U.S. policies on nuclear non-proliferation, arms control in space, conventional arms and technology transfer, compliance with and verification of arms control agreements -- have all been subjects of ACDA-Congressional dialogue in 1982.

Most day-to-day Agency relations with Congress are informally conducted between ACDA personnel and individual members and Staff. Congressional correspondence from members, staff, and Committees with which we most frequently deal, ranks next in volume. Those Committees are Senate Foreign Relations, House Foreign Affairs, the House and Senate Armed Services Committees, the Select Committees on Intelligence and the Appropriations Committees of both Houses. In 1982 Committee consultations and hearings involving ACDA officials included the following:

Congressional Committee Hearings and Consultations in 1982

Date	Title	ACDA Officials	Committee
2/5/82	Proposed Arms Sale to Venezuela	Archelaus Turrentine	Senate Foreign Relations
2/23/82	INF Briefing	Eugene Rostow	Subcommittee on International Security and Scientific Affairs and Subcommittee on Europe and the Middle East House Foreign Affairs Committee
2/23/82	ACDA Appropriations	Eugene Rostow	Subcommittee on State, Justice, Commerce and the Judiciary House Committee on Appropriations
3/10/82	INF and START (Executive Session)	Eugene Rostow	Senate Foreign Relations
3/16/82	Nomination Hearings	Robert Grey Norman Terrell James George	Senate Foreign Relations
3/24/82	Nomination Hearing	Paul Nitze	Senate Foreign Relations
3/24/82	Progress in Intermediate Range Nuclear Force Negotiations (INF) (Executive Consultation)	Paul Nitze	Senate Foreign Relations
3/24/82	ACDA Appropriations	Eugene Rostow William Montgomery	Subcommittee on State, Justice, Commerce and the Judiciary, Senate Committee on Appropriations

Date	Title	ACDA Officials	Committee
3/30/82	START Talks (Executive Consultation)	Eugene Rostow	Senate Foreign Relations
3/31/82	INF Briefing (Executive Consultation)	Paul Nitze	House Foreign Affairs
4/2/82	Strategic Arms and National Security (Executive Consultation)	Edward Rowny	House Foreign Affairs
4/30/82	Nomination Hearings	Manfred Eimer Louis Fields	Senate Foreign Relations
5/12/82	INF Briefing (Executive Consultation)	Paul Nitze	House Defense Appropriations Subcommittee
5/13/82	Nuclear Arms Reduction Proposal	Eugene Rostow	Senate Foreign Relations
6/10/82	Briefing on Planned START Talks (Executive Consultation	Edward Rowny	House Armed Services
6/10/82	Briefing on Planned START Talks (Executive Consultation)	Edward Rowny	Senate Leadership
6/24/82	Legislation to Amend the NNPA of 1978	Archelaus Turrentine	Subcommittee on International Security and Scientific Affairs and Subcommittee on International Economic Policy and Trade House Foreign Affairs

Date	Title	ACDA Officials	Committee
7/13/82	Foreign Policy and Arms Control Implications of Chemical Weapons	Robert Mikulak	House Foreign Affairs
7/29/82	Nomination Hearing	Richard Ellis	Senate Foreign Relations
7/29/82	U.S. Capability to Monitor Soviet Nuclear Weapons Tests (Executive Consultation)	Eugene Rostow	Senate Foreign Relations
7/30/82	Constitutional Implications of Arms Reduction Resolution (S.J. Res. 212)	Richard Richstein	Subcommittee on the Separation of Powers, Senate Judiciary
7/31/82	Foreign Policy and Arms Control Implications of Chemical Weapons	Robert Mikulak	House Foreign Affairs
9/8/82	Legislation to Amend the NPT of 1978	Archelaus Turrentine	House Foreign Affairs
9/8/82	Legislation to Amend the Non-Proliferation Act of 1978	Archelaus Turrentine	House Foreign Affairs
9/17/82	Nomination Hearing	William Graham	Senate Foreign Relations
9/20/82	Militarization of Space and Arms Control	Eugene Rostow	Senate Foreign Relations
9/21/82	START Talks (Executive Consultation)	Edward Rowny	Senate Foreign Relations
9/22/82	INF Briefing (Executive Consultation)	Paul Nitze	Subcommittee on International Security and Scientific Affairs and Subcommittee on Europe and the Middle East, House Foreign Affairs

Date	Title	ACDA Officials	Committee
9/22/82	START Talks (Executive Consultation)	Edward Rowny	Senate Select Committee on Intelligence
9/23/82	INF (Executive Consultation)	Paul Nitze	Senate Armed Services
9/28/82	START Talks (Executive Consultation)	Edward Rowny	Senate Armed Services
9/30/82	START Talks (Executive Consultation) (Closed Session)	Edward Rowny	House Foreign Affairs
12/2/82	Effectiveness of US Trade with Respect to South Africa	Carl Thorne	Subcommittee on International Economic Policy and Trade and Subcommittee on Africa, House Foreign Affairs
12/8/82	MX	Edward Rowny	Senate Armed Services
12/13/82	INF (Executive Consultations)	Paul Nitze	Senate Foreign Relations
12/13/82	START (Executive Consultations)	Edward Rowny	Senate Foreign Relations
12/14/82	INF (Executive Consultations)	Paul Nitze	Senate Select Committee on Intelligence

GENERAL ADVISORY COMMITTEE

The General Advisory Committee on Arms Control and Disarmament was authorized by the Arms Control and Disarmament Act of 1961 to advise the President, the Secretary of State, and the Director of the Arms Control and Disarmament Agency on matters affecting arms control, disarmament, and world peace. The members of the Committee are appointed by the President with the advice and consent of the Senate.

The Committee, chaired by Dr. William R. Graham, was confirmed by the Senate September 22, 1982. The Committee subsequently held meetings in October and November during which members were briefed by officials of all the relevant national security agencies on the status of arms control negotiations, the strategic posture of the United States, the Soviet military threat, and the relationship of arms control to U.S. national security. The Committee first met with the President on November 19, 1982. The members of the Committee in 1982 were:

William R. Graham, Chairman, is currently serving as Defense Research Analyst, R&D Associates, in Marina del Rey, California. He was Consultant to the Office of the Secretary of Defense from 1970 to 1981.

Colin Spencer Gray is serving as President of the National Institute for Public Policy in Virginia. He was Director of National Security Studies at the Hudson Institute in New York.

Shirley Pettis Harville is a member of the Board of Directors of the Kemper Corporation. She is a member of the Board of Trustees at the University of Redlands. In addition, she is Vice President of the Women's Research and Education Institute in Washington, D.C.

Roland F. Herbst has been with R&D Associates, Marina del Rey, California, since 1971 and is currently Director of the Nuclear Effects Division. He was Deputy Director, Defense Research and Engineering (Space and Strategic Systems), Office of the Secretary of Defense, from 1969 to 1971.

Francis P. Hoeber has been President of Hoeber Corporation in Arlington, Virginia, since 1974. He was with the Rand Corporation from 1960 to 1974 and the Stanford Research Institute from 1960 to 1968.

Robert B. Hotz is currently serving as Senior Editorial Consultant for McGraw-Hill Publications. He is also an author and lecturer. He was with Aviation Week and Space Technology magazine from 1953 to 1979.

Eli S. Jacobs is a private businessman in Los Angeles, California.

Charles Burton Marshall is serving as consultant to System Planning Corporation in Arlington, Virginia. He was on the staff of the Washington Center of Foreign Policy Research, The Johns Hopkins School of Advanced International Studies in Washington, D.C., from 1959 to 1975.

Jaime Oaxaca is Vice President and Assistant General Manager, Northrop Corporation, Electro-Mechanical Division.

John P. Roche is serving as Academic Dean, and Professor of Civilization and Foreign Affairs at The Fletcher School of Law and Diplomacy, Tufts University. He was consultant to the Vice President of the United States and the Department of State from 1964 to 1966 and Special Consultant to the President of the United States from 1966 to 1968.

Donald Rumsfeld is currently President and Chief Executive Officer at G. D. Searle and Company in Skokie, Illinois. He was Secretary of Defense from 1975 to 1976 and Assistant to the President from 1974 to 1975. He was United States Permanent Representative to NATO with the rank of Ambassador from 1973 to 1974.

Harriet Fast Scott is an occasional lecturer at the Army War College, Air University, National War College and the United States Military Academy. She is a consultant on Soviet military and political-military affairs to various government organizations and research institutes. She is a senior research associate at the Advanced International Studies Institute.

Laurence Hirsch Silberman is currently Executive Vice President (Legal and Government Affairs) of Crocker National Bank in San Francisco. He is also a visiting fellow of the American Enterprise Institute and a member of the Council on Foreign Relations. He is a former Ambassador to Yugoslavia, and was the President's Special Envoy to the European Community, Japan, Australia and Canada on International Labor Organization Affairs in 1976.

ACDA BUREAUS AND OFFICES

Introduction

The U.S. Arms Control and Disarmament Agency, established by statute in 1961, has responsibility within the Federal Government for developing, negotiating, and implementing a wide range of international agreements to control and reduce arms.

Congress established ACDA as an independent agency of the executive branch, reporting to the President. The Agency works closely with the National Security Council staff, the Departments of State and Defense, and the intelligence community to develop and carry out the President's arms control and disarmament policies as an integral and important component of overall foreign and national security policy.

ACDA performs a broad range of functions. Consistent with the overall responsibility of the Secretary of State for the conduct of foreign affairs, the Agency has the authority for the management of international negotiations in the arms control and disarmament field, leads the U.S. delegations to most of these negotiations, and plays a leading role in the preparation and coordination of U.S. negotiating positions.

The Agency is organized into the following bureaus and offices:

Office of the Director

As the principal adviser to the President, the Secretary of State, and the National Security Council on arms control and disarmament matters, the Director of ACDA is assisted directly by the Deputy Director and the Executive Secretary.

Also included in the Office of the Director are the Special Representative for Negotiations, the U.S. Commissioner on the Standing Consultative Commission, the U.S. Representative to the Committee on Disarmament, the U.S. Representative for Intermediate Range Nuclear Forces (INF) Negotiations, and the Senior Military Advisor.

In addition, the head of the U.S. Delegation to the Mutual and Balanced Force Reductions negotiations, although a State Department official, reports to the Director. The Office of the Director also supports the General Advisory Committee on Arms Control and Disarmament.

Bureau of Strategic Programs (SP)

The Bureau of Strategic Programs develops recommendations for arms control policy, strategy, tactics, and language for ongoing arms limitations talks with the Soviet Union. The Bureau provides organizational support and Washington backstopping for Strategic Arms Reduction Talks (START), Intermediate Range Nuclear Forces (INF), Standing Consultative Commission (SCC) negotiations, and for the periodic ABM Treaty reviews as well as the major portion of the diplomatic, advisory and administrative personnel for those delegations. SP also provides analysis and support for the Director of ACDA on all issues concerning those negotiations and participates in related intersgency working groups.

SP also carries out ACDA's responsibity for consulting with allies and representatives of other governments on these matters in Washington, New York, Geneva, Brussels (NATO), and capitals; for

preparing analyses of relevant technical and military systems and integrating these into the planning process for negotiations; and for providing management direction and administrative support for negotiating and backstopping records maintenance.

Bureau of Nuclear and Weapons Control (NWC)

Organizationally, NWC consists of four divisions. The International Nuclear Affairs Division, staffed primarily by international relations professionals, provides advice, assessments and policy recommendations on the international relations aspects of non-proliferation and has line responsibility for reviewing nuclear exports. The Nuclear Safeguards and Technology Division (NST), staffed with scientific professionals, deals with the safeguards system and fuel cycle related functions of the IAEA, international aspects of nuclear fuel cycles, and the technology aspects of non-proliferation. Staff specialists also provide Bureau interaction with the intelligence community on nuclear proliferation intelligence. The Arms Transfer Division, staffed with regional specialists, assesses the arms control implications of proposed arms transfers, represents ACDA in interagency arms transfer policy studies, and reviews selected Commerce Department export license applications for U.S. security and regional stability. It also participates in interagency fora to formulate and recommend U.S. policy on technology transfers, including technology related to dual-use equipment. The Defense Program and Analysis Division drafts Arms Control Impact Statements and guides them through the interagency review process, provides expert assistance to other

bureaus, coordinates publication of World Military Expenditures and Arms Transfers (WMEAT), and handles Agency responsibilities for inspections to assure compliance with the Antarctic Treaty. Special attention is given to increased ACDA responsibilities involving detailed aspects of space systems (including shuttle policy), and technology transfer issues related to missiles and space-launch vehicles. The division, in conjunction with the Army War College and Department of Defense, coordinates and participates in an arms control seminar as part of the elective program for U.S. military officers attending the Army War College.

Bureau of Verification and Intelligence (VI)

The Bureau of Verification and Intelligence is responsible for planning, organizing, and supervising the development of policies and studies dealing with the verifiability of provisions of current and projected arms control agreements. In line with this mission, the Bureau provides the assessments of verifiability and other information called for in Section 37 of the Arms Control and Disarmament Act; prepares analyses of information pertaining to compliance with existing arms control agreements; formulates the Agency's requirements for intelligence data; assesses possible new systems and procedures for verification; and provides intelligence information pertinent to the planning for arms control discussions.

In October 1982, the Bureau was also assigned the Agency's responsibilities for operations analyses and computer support.

To carry out these missions, the Bureau is divided into four components. These are: Verification Division, Intelligence

Division, Senior Advisor for Operations Analysis, and Computer Support Group.

Bureau of Multilateral Affairs (MA)

The Bureau of Multilateral Affairs, divided functionally into three divisions, has operational responsibility for those areas of arms control which are dealt with in international fora. A large part of the activity that takes place within MA consists of the preparation and backstopping of agency positions on major arms control issues considered at these fora.

The divisions within MA are more or less defined by the specific international meetings and conferences for which they are responsible. The International Relations Division, for instance, deals with the First Committee of the UN General Assembly, the Committee on Disarmament, and the UN Disarmament Commission. Similarly, the Regional Division deals with the ongoing negotiations on Mutual and Balanced Force Reductions in Vienna and the Conference on Security and Cooperation in Europe in Madrid. The third division of MA, the Science and Technology Division, is responsible for developing the scientific and technical aspects of many of the issues handled by the other two divisions.

Office of Administration (A)

The Office of Administration is responsible for the administrative management of the Agency, and for providing support to all of the Agency's components including its negotiating staffs in Geneva and Vienna. Management responsibilities include the Administration of all personnel, budget, fiscal, supply, security, communications,

and research contract activities. The Office maintains close liaison with the Department of State, the General Services Administration, and other organizations providing services for the Agency.

Office of the General Counsel (GC)

All matters of domestic and international law that affect the work of the Agency are the responsibility of the Office of the General Counsel. In this regard the General Counsel provides legal advice with respect to the preparation and management of U.S. participation in international negotiations in the arms control and disarmament field. This includes advice and assistance in the negotiation of arms control agreements, in the preparation of drafts of proposed arms control treaties, and on questions regarding the implementation, interpretation, revision and ratification of treaties.

The General Counsel also provides advice concerning the legal aspects of non-proliferation activities conducted by the Agency.

Finally, legal aspects of the Agency's legislative program and its policies and operations in the areas of personnel, security, contracts, procurement, fiscal, and administrative matters are provided by the General Counsel.

Office of Congressional and Public Affairs (CPA)

The Office of Congressional and Public Affairs is the focal point of responsibility for ACDA's Congressional relations activity. It also carries out the Agency's legislative mandate for dissemination and coordination of public information concerning arms

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control matters. It is responsible for all media contacts, press guidance on questions relating to Agency business, the planning and coordination of speaking engagements by ACDA officials, the operation of the ACDA Library and Historical Unit, and the conduct of the Hubert H. Humphrey Fellowship Program.

Office of Operations Analysis (OA)

The Office of Operations Analysis, all elements of which were merged with the four operational bureaus in 1982, provided analytical support on arms control issues to other elements of the Agency, as well as to interagency working groups. The office was composed of a group of experts in qualitative analyses of the operational implications of strategic, theater, and conventional forces, arms control measures, and other policy issues. In addition, the Office of Operations Analysis was responsible for the Agency's computer operations. These operations involved the use of two large-scale computers (one for classified calculations and one for unclassified work) and one classified mini-computer. Some of these activities, including support for ongoing arms control negotiations and the operation of two computerized information retrieval systems, were added to the responsibilities of the principal line bureaus on October 1, 1982.

Office of Strategic Assessments (OSA)

The primary function of the Office of Strategic Assessments (OSA) is to address policy-related concerns of the Director that cut across organizational areas within arms control and that require a long-term perspective for thorough treatment. Depending

upon the tasking from the Director OSA provides brief or in-depth analytical products as an advisory unit, with an overview perspective, to the Director.

APPENDIX I

Bilateral Arms Control Related Agreements Concluded Between the United States and the Soviet Union

June 1963 - December 1982

	Signed	Entered Into Force
"Hot Line" Agreement	6/20/63	6/20/63
"Hot Line" Improvement and Modernization Agreement	9/30/71	9/30/71
Agreement on Measures To Reduce the Risk of Outbreak of Nuclear War	9/30/71	9/30/71
Agreement on Prevention of Incidents On and Over the High Seas	5/25/72	5/25/72
ABM Treaty	5/26/72	10/3/72
Interim Agreement on the Limitation of Strategic Offensive Arms	5/26/72	10/3/72*
Memorandum of Understanding Regarding Establishment of a Standing Consultative Commission	12/21/72	12/21/72
Protocol to the ABM Treaty	7/3/74	5/24/76
Threshold Test Ban Treaty	7/3/74	
Treaty on the Limitation of Underground Nuclear Explosions for Peaceful Purposes	5/28/76	
Treaty on the Limitation of Strategic Offensive Arms	6/18/79	

* Expired by its terms on October 3, 1977

APPENDIX II

STATUS OF MULTILATERAL ARMS CONTROL AGREEMENTS
as of December 1982

	Antarctic Treaty	Limited Test Ban Treaty	Outer Space Treaty	Treaty Prohibiting Nuclear Weapons in Latin America	Nuclear Non-Proliferation Treaty	Seabed Arms Control Treaty	Geneva Protocol	Biological Weapons Convention	Environmental Modification Convention
Agreement Opened for Signature	12/1/59	8/5/63	1/27/67	2/14/67	7/1/68	2/11/71	6/17/25	4/10/72	5/18/77
Agreement Entered into Force	6/23/61	10/10/63	10/10/67	4/22/68	3/5/70	5/18/72	2/8/28	3/26/75	10/5/78
COUNTRY									
Afghanistan		P	S		P	P		P	
Algeria		S							
Antigua and Barbuda							P (1)		
Argentina	P	S	P	S		S	P	P	
Australia	P	P	P		P	P	P	P	S
Austria		P	P		P	P	P	P	
The Bahamas		P	P	P	P		P (1)		
Bangladesh					P				P
Barbados			P	P	P		P	P	
Belgium	P	P	P		P	P	P	P	P
Belize							P (1)		
Benin		P			P	S		P	S
Bhutan		P					P	P	
Bolivia		P	S	P	P	S		P	S
Botswana		P	S		P	P	P (1)	S	
Brazil	P	P	P	S(2)		S	P	P	S
Bulgaria	P	P	P		P	P	P	P	P
Burma		P	P			S	P	S	
Burundi		S	S		P	S	P	S	
Byelorussian S.S.R.		P	P			P		P	P
Cameroon		S	S		P	S			
Canada		P	P		P	P	P	P	P
Cape Verde		P			P	P		P	P
Central African Republic		P	S		P	P	P	S	
Chad		P			P				

P - Party
S - Signatory

APPENDIX II—Continued

STATUS OF MULTILATERAL ARMS CONTROL AGREEMENTS
as of December 1982 (Continued)

	Antarctic Treaty	Limited Test Ban Treaty	Outer Space Treaty	Treaty Prohibiting Nuclear Weapons in Latin America	Nuclear Non-Proliferation Treaty	Seabed Arms Control Treaty	Geneva Protocol	Biological Weapons Convention	Environmental Modification Convention
Agreement Opened for Signature	12/1/59	8/5/63	1/27/67	2/14/67	7/1/68	2/11/71	6/17/25	4/10/72	5/18/77
Agreement Entered into Force	6/23/61	10/10/63	10/10/67	4/22/68	3/5/70	5/18/72	2/8/28	3/26/75	10/5/78
COUNTRY									
Chile	P	P	P	S(2)			P	S	
China, People's Republic of				P(3)			P		
Colombia		S	S	P	S	S		S	
Congo (Brazzaville)					P	P		P	
Costa Rica		P		P	P	S		P	
Cuba							P	P	P
Cyprus		P	P		P	P	P	P	P
Czechoslovakia	P	P	P		P	P	P	P	P
Denmark	P	P	P		P	P	P	P	P
Dominica							P (1)		
Dominican Republic		P	P	P	P	P	P	P	
Ecuador		P	P	P	P		P	P	
Egypt		P	P		P		P	S	P
El Salvador		P	P	P	P		S	S	
Equatorial Guinea						S			
Estonia							P		
Ethiopia		S	S		P	P	P	P	S
Fiji		P	P		P		P	P	
Finland		P	P		P	P	P	P	P
France	P		P	P(3)S(4)			P		
Gabon		P			P			S	
Gambia		P	S		P	S	P	S	

P - Party
S - Signatory

APPENDIX II—Continued

STATUS OF MULTILATERAL ARMS CONTROL AGREEMENTS
as of December 1982 (Continued)

	Antarctic Treaty	Limited Test Ban Treaty	Outer Space Treaty	Treaty Prohibiting Nuclear Weapons in Latin America	Nuclear Non-Proliferation Treaty	Seabed Arms Control Treaty	Geneva Protocol	Biological Weapons Convention	Environmental Modification Convention
Agreement Opened for Signature	12/1/59	8/5/63	1/27/67	2/14/67	7/1/68	2/11/71	6/17/25	4/10/72	5/18/77
Agreement Entered into Force	6/23/61	10/10/63	10/10/67	4/22/68	3/5/70	5/18/72	2/8/28	3/26/75	10/5/78
COUNTRY									
German Democratic Republic	P	P	P		P	P	P	P	P
Germany, Federal Republic of	P	P	P		P	P	P	S	S
Ghana		P	S		P	P	P	P	P
Greece		P	P		P	S	P	P	
Grenada				P	P		P (1)		
Guatemala		P		P	P	S		P	
Guinea						S			
Guinea-Bissau					P	P		P	
Guyana			S				P (1)	S	
Haiti		S	S	P	P			S	
Holy See			S		P		P		S
Honduras		P	S	P	P	S		P	
Hungary		P	P		P	P	P	P	P
Iceland		P	P		P	P	P	P	S
India		P	S			P	P	P	P
Indonesia		P	S		P		P	S	
Iran		P	S		P	P	P	P	S
Iraq		P	P		P	P	P	S	S
Ireland		P	P		P	P	P	P	S
Israel		P	P				P		
Italy	P	P	P		P	P	P	P	P
Ivory Coast		P			P	P	P	S	

P - Party
S - Signatory

APPENDIX II—Continued

STATUS OF MULTILATERAL ARMS CONTROL AGREEMENTS
as of December 1982 (Continued)

	Antarctic Treaty	Limited Test Ban Treaty	Outer Space Treaty	Treaty Prohibiting Nuclear Weapons in Latin America	Nuclear Non-Proliferation Treaty	Seabed Arms Control Treaty	Geneva Protocol	Biological Weapons Convention	Environmental Modification Convention
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COUNTRY									
Jamaica		S	P	P	P	S	P	P	
Japan	P	P	P		P	P	P	P	P
Jordan		P	S		P	P	P	P	
Kampuchea					P	S		S	
Kenya		P			P		P	P	
Kiribati							P (1)		
Korea		P	P		P	S		S	
Kuwait		P	P		S		P	P	P
Laos		P	P		P	P		P	P
Lativa							P		
Lebanon		P	P		P	S	P	P	S
Lesotho			S		P	P	P	S	
Liberia		P			P	S	P	S	S
Libya		P	P		P		P		
Liechtenstein					P				
Lithuania							P	P	
Luxembourg		P	S		P	S	P	P	S
Madagascar		P	P		P	S	P	S	P
Malawi		P					P	S	
Malaysia		P	S		P	P	P	S	
Maldives					P		P		
Mali		S	P		P	S	P	S	
Malta		P			P	P	P	P	
Mauritania		P						P	

P - Party
S - Signatory

APPENDIX II—Continued

STATUS OF MULTILATERAL ARMS CONTROL AGREEMENTS
as of December 1982 (Continued)

COUNTRY	Antarctic Treaty	Limited Test Ban Treaty	Outer Space Treaty	Treaty Prohibiting Nuclear Weapons in Latin America	Nuclear Non-Proliferation Treaty	Seabed Arms Control Treaty	Geneva Protocol	Biological Weapons Convention	Environmental Modification Convention
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Mauritius		P	P		P	P	P		
Mexico		P	P	P	P		P	P	
Monaco							P	P	
Mongolia		P	P			P	P	P	P
Morocco		P	P			P	P	S	S
Nauru					P				
Nepal		P	P			P	P	S	
Netherlands	P	P	P	P(4)	P	P	P	P	S
New Zealand	P	P	P		P	P	P	P	
Nicaragua		P	S	P	P	P	S	P	S
Niger		P	P			P	P	P	
Nigeria		P	P		P		P	P	
Norway	P	P	P		P	P	P	P	P
Pakistan		S	P				P	P	
Panama		P	S	P	P	P	P	P	
Papua New Guinea	P	P	P		P		P	P	P
Paraguay		S		P	P	S	P	P	
Peru	P	P	P	P	P			S	
Philippines		P	S		P		P	P	
Poland	P	P	P		P	P	P	P	P
Portugal		S			P	P	P	P	S
Qatar						P	P	P	
Romania	P	P	P		P	P	P	P	
Rwanda		P	S		P	P	P	P	

P- Party
S - SIgnatory

APPENDIX II—Continued

STATUS OF MULTILATERAL ARMS CONTROL AGREEMENTS
as of December 1982 (Continued)

	Antarctic Treaty	Limited Test Ban Treaty	Outer Space Treaty	Treaty Prohibiting Nuclear Weapons in Latin America	Nuclear Non-Proliferation Treaty	Seabed Arms Control Treaty	Geneva Protocol	Biological Weapons Convention	Environmental Modification Convention
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COUNTRY									
Saint Lucia					P		P (1)		S
San Marino		P	P		P			P	
Sao Tome and Principe						P		P	P
Saudi Arabia			P			P	P	P	
Senegal		P			P	S		P	
Seychelles			P			P	P (1)	P	
Sierra Leone		P	P		P	S	P	P	S
Singapore		P	P		P	P	P (1)	P	
Somalia		S	S		P			S	P
Solomon Islands							P (1)		
South Africa	P	P	P			P	P	P	
Spain		P	P				P	P	P
Sri Lanka		P	S		P		P	S	P
Sudan		P			P	S	P		
Suriname				P	P		P		
Swaziland		P			P	P	P (1)		
Sweden		P	P		P	P	P	P	
Switzerland		P	P		P	P	P	P	
Syrian Arab Republic		P	P		P		P	S	S
Taiwan		P	P		P	P	P	P	
Tanzania		P				S	P	S	
Thailand		P	P		P		P	P	
Togo		P	S		P	P	P	P	
Tonga		P	P		P		P	P	

P - Party
S - Signatory

APPENDIX II—Continued

STATUS OF MULTILATERAL ARMS CONTROL AGREEMENTS
as of December 1982 (Continued)

	Antarctic Treaty	Limited Test Ban Treaty	Outer Space Treaty	Treaty Prohibiting Nuclear Weapons in Latin America	Nuclear Non-Proliferation Treaty	Seabed Arms Control Treaty	Geneva Protocol	Biological Weapons Convention	Environmental Modification Convention
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COUNTRY									
Trinidad and Tobago		P	S	P	S		P		
Tunisia		P	P		P	P	P	P	P
Turkey		P	P		P	P	P	P	S
Tuvalu					P		P (1)		
Uganda		P	P		P		P		S
Ukrainian S.S.R.		P	P		P	P		P	P
Union of Soviet Socialist Republics	P	P	P	P(3)	P	P	P	P	P
United Arab Emirates								S	
United Kingdom	P	P	P	P(4)(3)	P	P	P	P	P
United States	P	P	P	P(3)(4)	P	P	P	P	P
Upper Volta		S	P		P		P		
Uruguay	P	P	P	P	P	S	P	P	
Venezuela		P	P	P	P		P	P	
Viet Nam, Socialist Republic of			P		P	P	P	P	P
Western Somoa		P			P				
Yemen (Aden)		P	P		P	P		P	P
Yemen (Sana)		S			S	S	P	S	P
Yugoslavia		P	S		P	P	P	P	
Zaire		P	S		P			P	S
Zambia		P	P			P	P (1)		
Zimbabwe							P (1)		P
Total	25P	111P 15S	81P 31S	30P 4S	117P 4S	70P 30S	125P 2S	94P 33S	38P 24S

P - Party
S - Signatory

APPENDIX II—Continued

Footnotes

(1) Based on general declarations concerning continuing treaty obligations applicable prior to independence.

(2) Also ratified subject to preconditions not yet met.

(3) Additional Protocol II

(4) Additional Protocol I

APPENDIX III

Agency Expenditures in Fiscal Year 1982

Total expenditures for the year were $14,463,417.50

APPENDIX IV

Selected List of Available ACDA Publications

World Military Expenditures and Arms Transfers

Documents on Disarmament

Arms Control and Disarmament Agreements

ACDA Annual Report

APPENDIX V

Officials of ACDA
(as of December 31, 1982)

DIRECTOR	Eugene Rostow
DEPUTY DIRECTOR	Robert Grey, Designate
Special Representative for Negotiations	Edward L. Rowny
U.S. Commissioner, Standing Consultative Commission	Richard N. Ellis
U.S. Representative to the Committee on Disarmament	Louis G. Fields, Jr.
U.S. Representative for INF Negotiations	Paul Nitze
The Executive Secretary	Joseph A. Presel
Senior Military Adviser	Col. Joel M. McKean, USAF
Executive Director, General Advisory Committee	Charles M. Kupperman
ASSISTANT DIRECTOR FOR STRATEGIC PROGRAMS	Vacant
Deputy	Louis Nosenzo
Deputy	Jack Mendelsohn
ASSISTANT DIRECTOR FOR NUCLEAR AND WEAPONS CONTROL	Norman Terrell, Designate to December 3, 1982
Deputy	Archelaus R. Turrentine
ASSISTANT DIRECTOR FOR VERIFICATION AND INTELLIGENCE	Manfred Eimer, Designate
ASSISTANT DIRECTOR FOR MULTILATERAL AFFAIRS	James L. George
Deputy	Mary Elizabeth Hoinkes
Deputy	Richard M. Milton
GENERAL COUNSEL	A. Richard Richstein
Deputy	Norman Wulf
DIRECTOR OF CONGRESSIONAL AND PUBLIC AFFAIRS	Thomas Graham, Jr.
Deputy Director for Congressional Relations	A. M. Christopher
Public Affairs Adviser	Joseph D. Lehman
ADMINISTRATIVE DIRECTOR	William J. Montgomery
Deputy	John E. Grassle

APPENDIX VI.—ACDA ORGANIZATIONAL CHART